

# Service Manual

Simplified

Dolby NR-Equipped  
Stereo Double Cassette Deck

Cassette Deck

 \* DOLBY B·C NR HX PRO

RS-X920

Colour

(K)... Black Type

Area

Suffix for Model No.	Area	Colour
(E)	Europe.	(K)
(EB)	Great Britain.	
(EG)	Germany and Italy.	



- Please file and use this manual together with the service manual for Model No. RS-X902, Order No. AD9103047C2.
- This service manual indicates the main differences between; Original RS-X902.

## ■ LINE-UP OF COMPONENTS

System Name	Unit
SC-X920 (E)	ST-X902LA (E) : Tuner
	SU-X920D (E) : Amplifier
	RS-X920 (E) : Cassette Deck
	: CD Player
	SL-J110R (E) : Turntable
	SB-CS95 (E) : Speaker (Made in PAES)
SC-X920 (EB)	ST-X902LA (EB) : Tuner
	SU-X920D (EB) : Amplifier
	RS-X920 (EB) : Cassette Deck
	SL-PJ38A (EB) : CD Player (Made in MBV)
	SL-J110R (EB) : Turntable
	SB-CS95 (E) : Speaker (Made in PAES)
SC-X920 (EG)	ST-X902LA (EG) : Tuner
	SU-X920D (EG) : Amplifier
	RS-X920 (EG) : Cassette Deck
	SL-PJ38A (EG) : CD Player (Made in MBV)
	SL-J110R (EG) : Turntable
	SB-CS95 (E) : Speaker (Made in PAES)

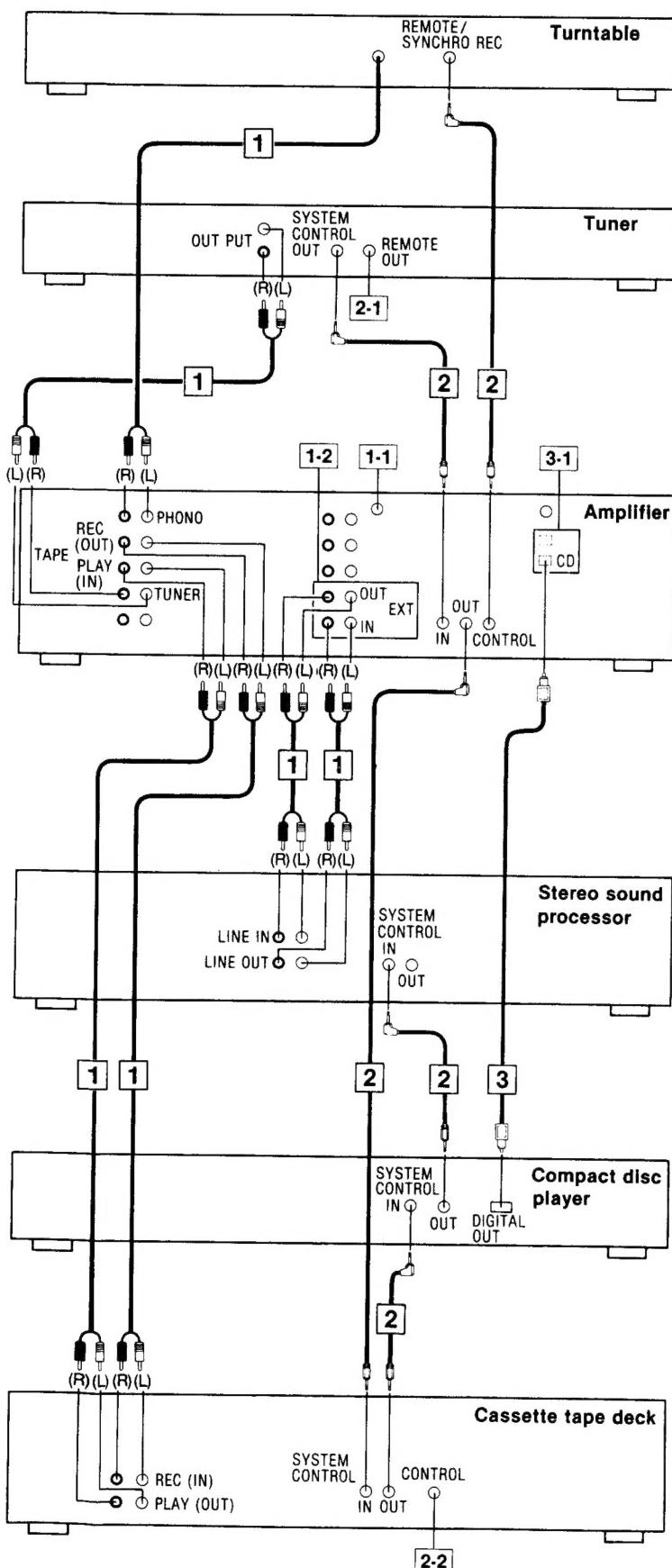
System Name	Unit
SC-X920 (EI)	ST-X902LA (EI) : Tuner (Made in PFS)
	SU-X920D (EG) : Amplifier
	RS-X920 (EG) : Cassette Deck
	SL-PJ38A (EG) : CD Player (Made in MBV)
	SL-J110R (EG) : Turntable
	SB-CS95 (E) : Speaker (Made in PAES)
SC-X920 (EF)	ST-X902LA (EF) : Tuner (Made in PFS)
	SU-X920D (E) : Amplifier
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\* HX Pro headroom extension originated by Bang 'Olufsen and manufactured under license from Dolby Laboratories Licensing Corporation.  
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Technics

## ■ CONNECTIONS

### Connections of each unit



Connection diagrams shown are for connections to a Technics hi-fi component system.  
Make connections in the numbered sequential order.

#### 1 Connect the stereo connection cables

(included with the turntable, tuner, stereo sound processor, and cassette tape deck).

##### Stereo connection cable

White (L) Red (R)

#### 1-1

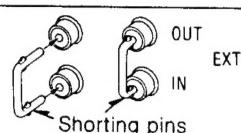
##### "GND" terminal of the amplifier

This terminal is for use with a turntable which has a ground wire.

#### 1-2

##### "EXT" terminals of the amplifier

When these terminals are not in use, be sure to insert the "shorting" pins (included).



#### 2 Connect the L-type cable

(included with the turntable, tuner, stereo sound processor, compact disc player, and cassette tape deck).

#### 2-1

##### "REMOTE OUT" terminal

This terminal is used to connect to the "REMOTE IN" terminal of the Technics multi-compact disc player (not included).

#### 2-2

##### "CONTROL" terminal

Make a connection from this terminal to the "CONTROL" terminal for a cassette deck on a Technics multi compact disc player.

(For detailed information, refer to the operating instructions of the Technics multi compact disc player.)

#### 3 Connect the optical-fiber cable

(included with the compact disc player).

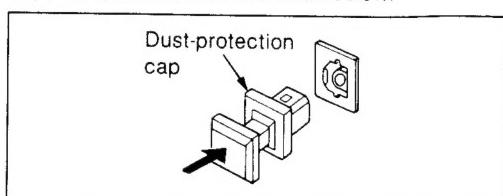
#### 3-1

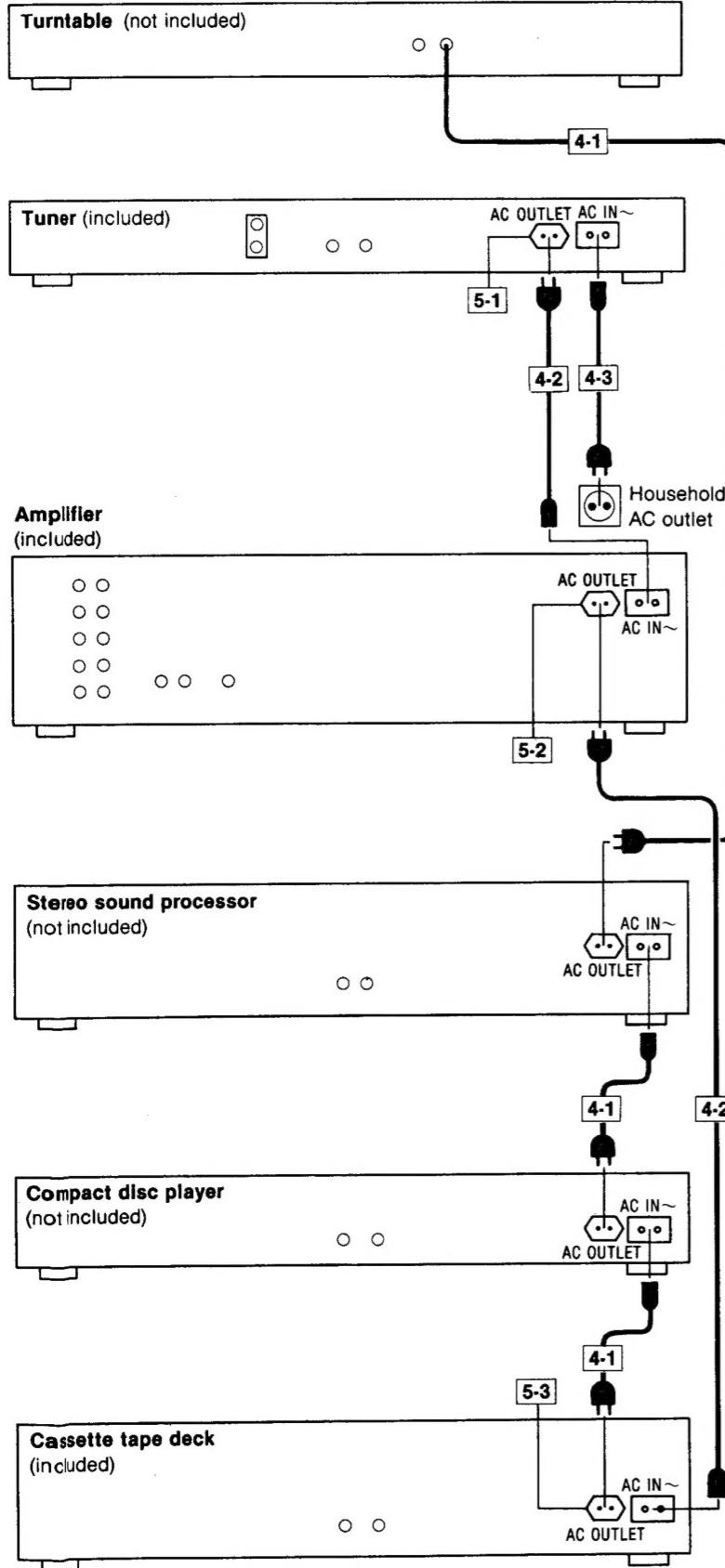
##### "DIGITAL IN" (CD, DAT) terminals of the amplifier

These terminals are protected by the dust-protection caps to avoid damage by the dust, etc.

Remove the caps only when the "DIGITAL IN" terminals are to be used.

When these terminals are not being used, attach the caps as shown in the illustration below.



**Connections of each unit (continued)**

**CHANGE IN REPLACEMENT PARTS LIST (on pages 32~36, 39, 40, 45)**

**Notes:** • Mentioned in this parts list is only those different from Model No. RS-X902 (E). All other parts are the same as for RS-X902 (E).

• Important safety notice:

Components identified by  $\Delta$  mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Ref. No.	Change of Part No.		Part Name & Description	Remarks
	RS-X902 (E)	RS-X920 (E, EB, EG)		
<b>INTEGRATED CIRCUIT(S)</b>				
IC971	DN6851ALB	<b>LB9051A-WD</b>	HALL (DECK 1)	
IC971A	DN6851ALB	<b>LB9051A-WD</b>	HALL (DECK 2)	
<b>TRANSISTOR(S)</b>				
Q5-8	KSA1175YGTA	<b>2SA1309A-R</b>	TRANSISTOR	
Q9-14	KSC2785YGTA	<b>2SC3311A-Q</b>	TRANSISTOR	
Q103, 104	KSC2785YGTA	<b>2SC3311A-Q</b>	TRANSISTOR	
Q107, 108	KSA1175YGTA	<b>2SA1309A-R</b>	TRANSISTOR	
Q109-112	KSC2785YGTA	<b>2SC3311A-Q</b>	TRANSISTOR	
Q303	KSB564ACYGTA	<b>2SB621A-R</b>	TRANSISTOR	
Q353	KSB564ACYGTA	<b>2SB621A-R</b>	TRANSISTOR	
Q551	KSA1175YGTA	<b>2SA1309A-R</b>	TRANSISTOR	
Q607	KSB564ACYGTA	<b>2SB621A-R</b>	TRANSISTOR	
Q816	KSC2785YGTA	<b>2SC3311A-Q</b>	TRANSISTOR	
Q905	KSC2785YGTA	<b>2SC3311A-Q</b>	TRANSISTOR	
Q911	KSA1175YGTA	<b>2SA1309A-R</b>	TRANSISTOR	
Q918	KSA1175YGTA	<b>2SA1309A-R</b>	TRANSISTOR	
Q929	KSC2785YGTA	<b>2SC3311A-Q</b>	TRANSISTOR	
Q932	KSC2785YGTA	<b>2SC3311A-Q</b>	TRANSISTOR	
<b>CONNECTOR(S)</b>				
CN4	RJS1A1704	<b>RJS1A6604</b>	CONNECTOR (4P)	
CN6	RJS1A1704	<b>RJS1A6604</b>	CONNECTOR (4P)	
CN600A	RJS1A1703	<b>RJS1A6603</b>	CONNECTOR (3P)	
CN600B	RJS1A1703	<b>RJS1A6603</b>	CONNECTOR (3P)	
<b>JACK(S)</b>				
JK702	RJS1A4902-B	<b>RJS1A4802-B</b>	AC OUTLET	(EB) $\Delta$
		<b>RJS1A4902-B</b>	AC OUTLET	(E, EG) $\Delta$
<b>FLAT CABLE(S)</b>				
W3	RWJ0210200QQ	<b>RWJ5710200QQ</b>	FLAT CABLE (10P)	
W5	RWJ0210200QQ	<b>RWJ5710200QQ</b>	FLAT CABLE (10P)	
W8	RWJ0210200KQ	<b>RWJ5710200KQ</b>	FLAT CABLE (10P)	
<b>RESISTORS</b>				
R35, 36	ERDS2TJ474	<b>ERDS2TJ394</b>	C. RESISTOR, 1/4W, 390k $\Omega$	
R141, 142	ERDS2TJ103	<b>ERDS2TJ562</b>	C. RESISTOR, 1/4W, 5.6k $\Omega$	
R144, 145	ERDS2TJ103	<b>ERDS2TJ562</b>	C. RESISTOR, 1/4W, 5.6k $\Omega$	
<b>CAPACITORS</b>				
C7-10	ECBT1H561KB5	<b>ECBT1H471KB5</b>	C. CAPACITOR, 50V, 470pF	
C13, 14	ECEA0JKA101B	<b>ECEA1AU101</b>	E. CAPACITOR, 10V, 100 $\mu$ F	
C15, 16	ECQB1H682JZ3	<b>ECQB1H822JF3</b>	C. CAPACITOR, 50V, 8200pF	
C21	ECEA0JKA101B	<b>ECEA1AU101</b>	E. CAPACITOR, 10V, 100 $\mu$ F	
C57, 58	ECEA1AKA470B	<b>ECEA1CKA470B</b>	E. CAPACITOR, 16V, 47 $\mu$ F	
C131, 132	ECQB1H822JZ	<b>ECQB1H153JF3</b>	C. CAPACITOR, 50V, 0.015 $\mu$ F	
C135, 136	ECQB1H822JZ	<b>ECQB1H153JF3</b>	C. CAPACITOR, 50V, 0.015 $\mu$ F	

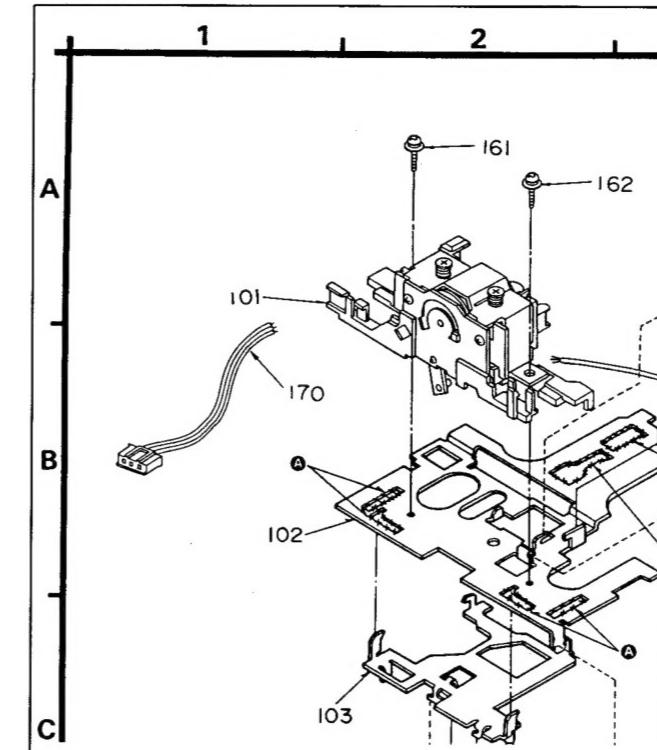
Ref. No.	Change of Part No.		Part Name & Description	Remarks
	RS-X902 (E)	RS-X920 (E, EB, EG)		
<b>CABINET AND CHASSIS</b>				
3	RYF0136-K	RYF0136B-K	CASSETTE LID (DECK 1)	
4	RYF0137-K	RYF0137B-K	CASSETTE LID (DECK 2)	
6	RGR0102C-D	RGR0102B-D1	REAR PANEL	(EB)
		RGR0102C-F1	REAR PANEL	(EG)
		RGR0102C-H1	REAR PANEL	(E)
7	RJS1A4902-A	RJS1A4802-A	AC OUTLET COVER	(EB)
		RJS1A4902-A	AC OUTLET COVER	(E, EG)
13	RGG0066-K	RGG0066B-K	FRONT AL PANEL	
14	RFKGSX502E-K	RFKGSX520E-K	FRONT PANEL ASS'Y	
<b>PACKING MATERIAL</b>				
P1	RPG0845	RPG1209	PACKING CASE	
P3	SPSD152	RPQ0164	ACCESSORIES PAD	
P4	SPP756	XZB50X65A02Z	PROTECTION COVER (UNIT)	
P5	—	XZB24X34C04	PROTECTION BAG (ACCESSORIES)	Addition
<b>ACCESSORIES</b>				
A1	RQF1078	—	INSTRUCTION MANUAL UNIT	(E) Deletion
		—	INSTRUCTION MANUAL UNIT	(EB) Deletion
		—	INSTRUCTION MANUAL UNIT	(EG) Deletion
A1-1	RFKSSX902E-K	RFKSCX520DEK	INSTRUCTION MANUAL ASS'Y	(E)
		RQT1493-D	INSTRUCTION MANUAL	(EG)
		RQT1494-B	INSTRUCTION MANUAL	(EB)
A2	SJA187	RJA0018-1K	AC POWER SUPPLY CORD	(E, EG) △
	SJA188	SJA188	AC POWER SUPPLY CORD	(EB) △
A3	SJP2249-3	SJP2276	STEREO CONNECTION CABLE	
<b>MECHANISM PARTS LIST</b>				
<b>DECK 1</b>				
161	XTW2+6L	SCREW	Change of Pcs.	
162	XTW2+8L	—	SCREW	Deletion
<b>DECK 2</b>				
261	XTW2+6L	SCREW	Change of Pcs.	
262	XTW2+8L	—	SCREW	Deletion

## ■ EXPLODED VIEWS (on pages 41, 43.)

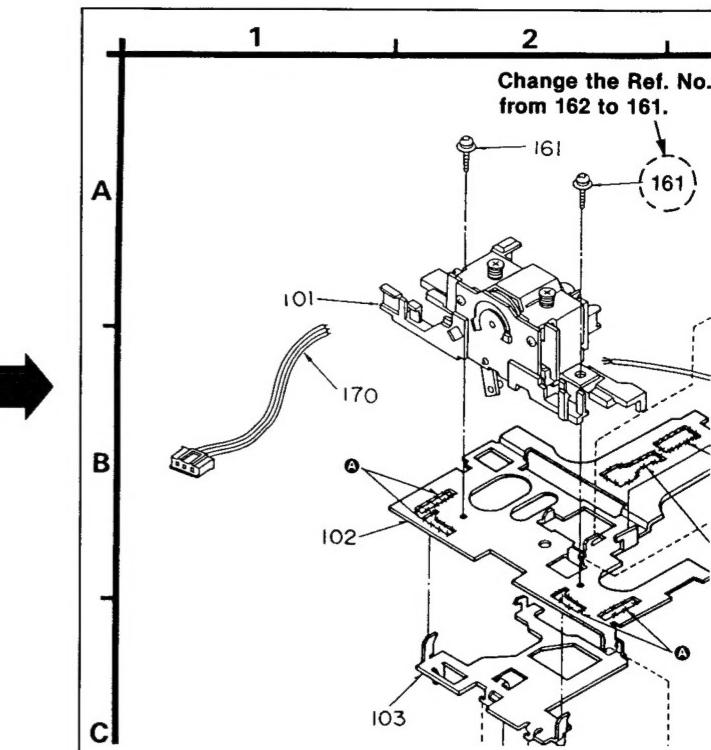
### • Mechanical parts

RS-X920

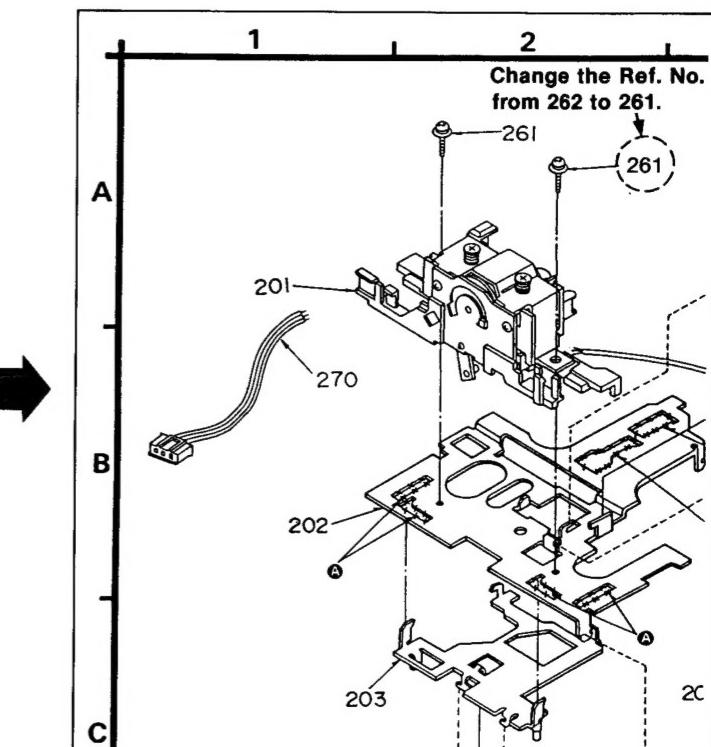
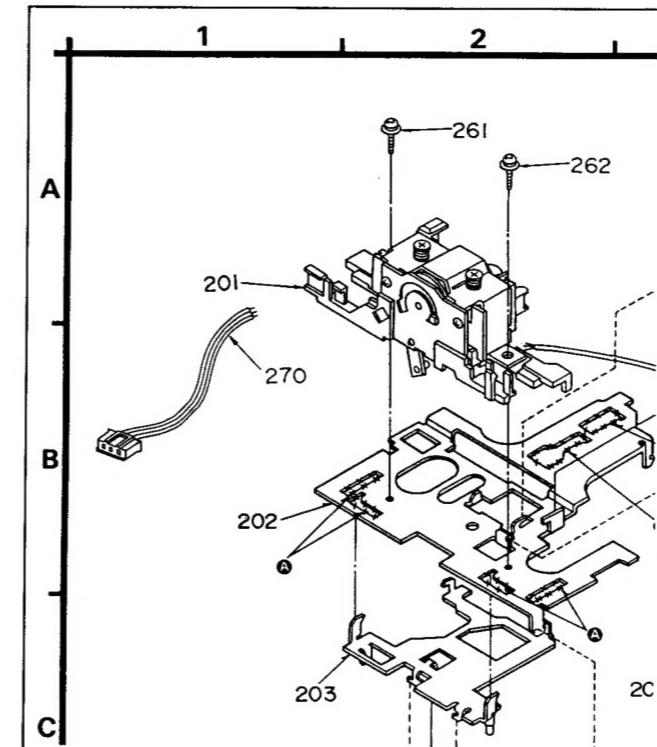
• DECK 1



RS-X920

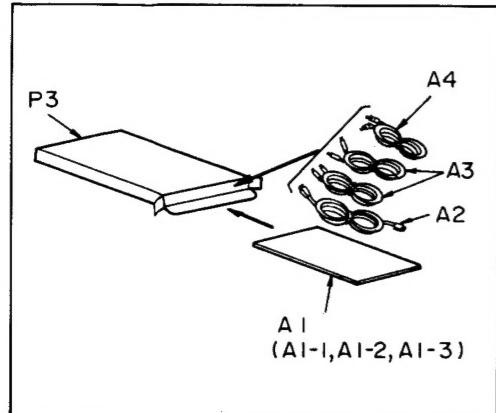


• DECK 2

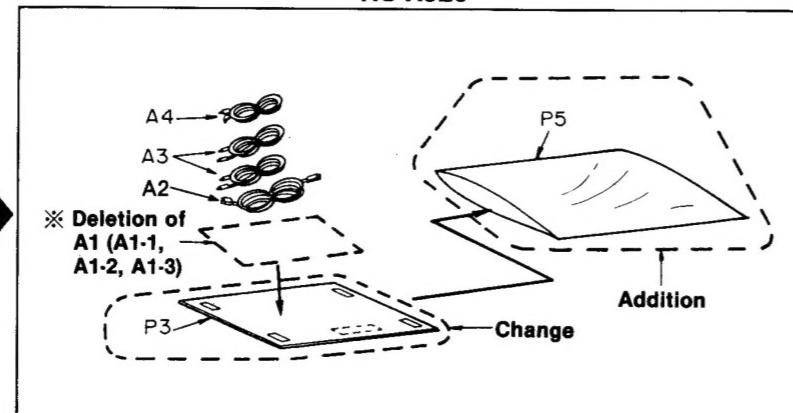


## ■ PACKAGING (on page 31.)

RS-X902



RS-X920



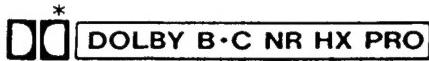
### ※ Note:

This packaging not illustrated Ref. No. A1 (A1-1, A1-2, A1-3). Refer to the packaging on page 42 of the service manual for Model No. SU-X902, Order No. AD9103052C2.

# Service Manual

Cassette Deck

Dolby NR-Equipped  
Stereo Double Cassette Deck



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## MECHANISM SERIES (AR300)

### SPECIFICATIONS

#### ■ CASSETTE DECK SECTION

<b>Deck system</b>	Stereo cassette deck	0.07% (WRMS)
<b>Track system</b>	4-track, 2-channel	$\pm 0.2\%$ (DIN)
<b>Heads</b>		
(tape deck 1) Rec/play	Permalloy head	
Erasing	Double-gap ferrite head	Approx. 110 seconds with C-60 cassette tape
(tape deck 2) Rec/play	Permalloy head	
Erasing	Double-gap ferrite head	
<b>Motors</b>		
(tape deck 1) Capstan	DC servo motor	<b>Power consumption</b>
(tape deck 2) Capstan	DC servo motor	20 W
<b>Recording system</b>	AC bias	AC 50 Hz/60 Hz, 230–240 V
Bias frequency	80 kHz	360 × 129 × 297 mm
<b>Erasing system</b>	AC erase	(14 $\frac{3}{16}$ " × 5 $\frac{9}{32}$ " × 11 $\frac{11}{16}$ ")
<b>Tape speeds</b>	4.8 cm/sec. (1 $\frac{7}{8}$ ips)	4.6 kg (10.1 lb.)
<b>Frequency response</b>		
NORMAL	30 Hz~16 kHz	
	40 Hz~15 kHz (DIN)	
CrO <sub>2</sub>	30 Hz~17 kHz	<b>Note:</b>
	40 Hz~16 kHz (DIN)	Specifications are subject to change without notice.
METAL	30 Hz~18 kHz	Weight and dimensions are approximate.
	40 Hz~17 kHz (DIN)	
<b>S/N</b> (signal level=max recording level, CrO <sub>2</sub> type tape)		
Dolby C NR on	74 dB (CCIR)	
Dolby B NR on	66 dB (CCIR)	
Dolby NR off	56 dB (A weighted)	
<b>Power supply</b>		
<b>Dimensions (W×H×D)</b>		
<b>Weight</b>		

#### Color

(K)... Black Type

#### Area

Country Code	Area	Color
(E)	Continental Europe.	(K)
(EB)	Great Britain.	
(EG)	F.R. Germany and Italy.	

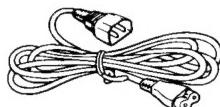
# Technics

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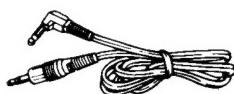
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## ■ ACCESSORIES



AC power supply cord  
 (SJA187) .... (E, EG)  
 (SJA188) .... (EB) .... 1pc.



L-type cable  
 (SJP2257T) .... 1pc.

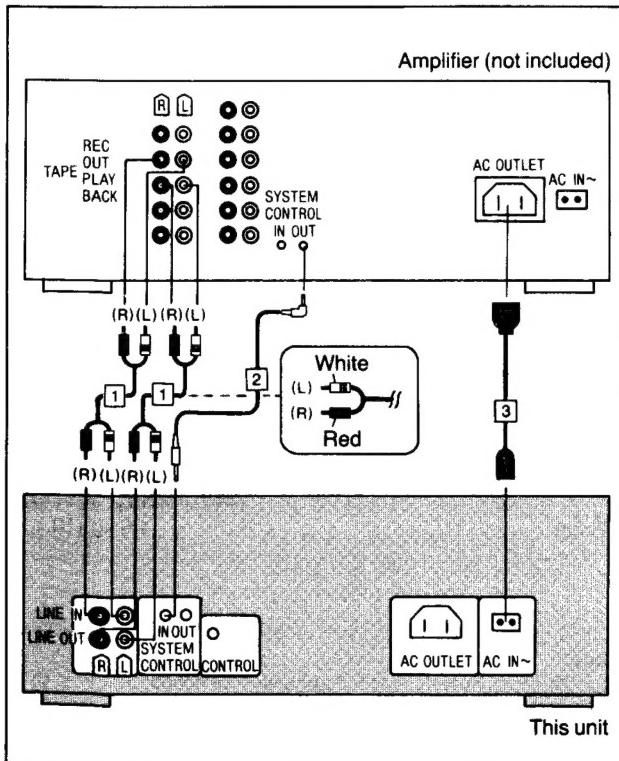


Stereo connection cables  
 (SJP2249-3) .... 2pcs.

## ■ CONNECTIONS

Make connections in the numbered sequence by using the included cables.

- 1 Connect the stereo connection cables.
- 2 Connect the L-type cable.
- 3 Connect the AC power supply cord to the "AC OUTLET" of the amplifier or the household AC outlet.



The illustration at the left shows an example of connections made when this unit is combined with a Technics hi-fi component system, and shows only the connections to be made to and from this unit in that combination.

Refer to the illustration together with the instructions provided below.

### "SYSTEM CONTROL IN" terminal

Make a connection from this terminal to the "SYSTEM CONTROL OUT" terminal for a cassette deck on a Technics amplifier. (For detailed information, refer to the operating instructions of the Technics amplifier.)

### "SYSTEM CONTROL OUT" terminal

Make a connection from this terminal to the "SYSTEM CONTROL IN" terminal of a Technics stereo sound processor or to the "SYSTEM CONTROL IN" terminal of a Technics compact disc player. (For detailed information, refer to the operating instructions of the Technics stereo sound processor or the Technics compact disc player.)

(For detailed information, refer to the operating instructions of the Technics stereo sound processor or the Technics compact disc player.)

### "CONTROL" terminal

Make a connection from this terminal to the "CONTROL" terminal for a cassette deck on a Technics multi compact disc player. (For detailed information, refer to the operating instructions of the Technics multi compact disc player.)

### AC power supply cord (3)

#### Notes:

- The configuration of the AC outlet and AC power supply cord differs according to area.
- If this unit is not to be connected with the amplifier, the cord is to be connected to the household AC outlet.

#### For United Kingdom

Cut off and dispose of the plug and replace with a suitable plug. (Refer to "For United Kingdom" above.)

#### Household AC outlet



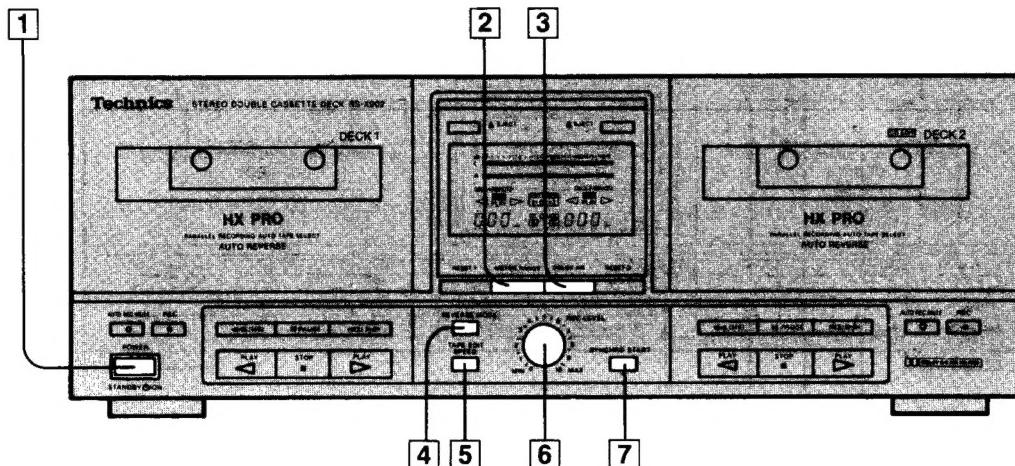
Fit a suitable plug to the AC power supply cord.

### "AC OUTLET"

#### "UNSWITCHED" outlet

Power is always available, regardless of power switch. Audio equipment rated up to 100 W can be connected.

## ■ LOCATION OF CONTROLS



### Controls common to both tape decks

**1 Power "STANDBY  $\ominus$  /ON" switch  
(POWER, STANDBY  $\ominus$  /ON)**

This switch switches ON and OFF the secondary circuit power only. The unit is in the "standby" condition when this switch is set to the STANDBY  $\ominus$  position. Regardless of the switch setting, the primary circuit is always "live" as long as the power cord is connected to an electrical outlet.

**2 Meter-range selector (METER RANGE)**

This selector can be used to select the meter-range display of the input level meter.

**3 Dolby noise-reduction selector (DOLBY NR)**

This selector can be used to reduce the hiss noise that is characteristic of tape. This unit is provided with both the B-type and C-type noise-reduction systems.

**4 Reverse-mode selector (REVERSE MODE)**

This selector can be used for selection of the reverse mode (for either playback or recording).

**5 Tape-to-tape recording tape-speed selector  
(TAPE EDIT SPEED)**

This selector can be used to select the recording speed when a tape-to-tape recording is made.

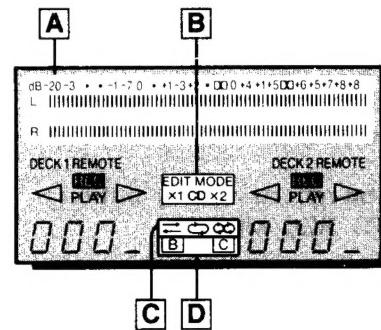
**6 Recording-level control (REC LEVEL)**

This control can be used to regulate the recording level of both tape decks.

**7 Synchro-start button (SYNCHRO START)**

This button can be used to start a tape-to-tape recording, simultaneously starting tape deck 1 (the playback deck) and tape deck 2 (the recording deck).

### Indicators common to both tape decks



**A Input level meter**

During playback, this meter indicates the level of the recorded sound source.

During recording, it indicates the level being recorded, adjusted by the recording-level control.

**B Edit-recording indicators  
(EDIT MODE, CD,  $\times 1$ ,  $\times 2$ )**

The words "EDIT MODE" and " $\times 1$ " (or " $\times 2$ ") indicator will illuminate when a tape-to-tape recording is made.

The words "EDIT MODE" and "CD" indicator will illuminate when a CD edit-recording is made.

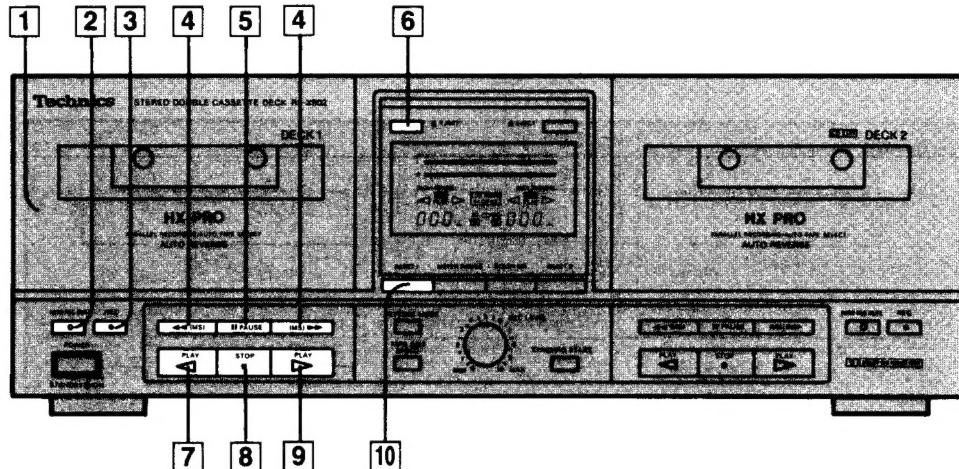
**C Reverse-mode indicators (  $\leftarrow$  ,  $\rightarrow$  ,  $\infty$  )**

One of these indicators illuminates to show which of the reverse modes was selected by the reverse-mode selector.

**D Dolby noise-reduction indicators (B, C)**

One of these indicators illuminates to show the type of Dolby noise-reduction system selected by pressing the Dolby noise-reduction selector.

## Tape deck 1



## Tape deck 2

## Controls applicable to tape decks 1 and 2

Both tape deck 1 and tape deck 2 have the same controls, indicators, etc., and have the same functions, so the following explanation, although for tape deck 1, is equally applicable to tape deck 2.

## 1 Cassette holder

2 Automatic-record-muting button  
(□ AUTO REC MUTE)

This button can be used to make a silent interval on the tape being recorded on the tape deck.

## 3 Record button (● REC)

This button can be used to change the tape deck to the recording stand-by mode.

4 Fast-forward/rewind/search buttons  
[◀◀ (MS), (MS) ▶▶]

These buttons can be used to fast-forward or rewind the tape, or to easily search for a tune's beginning quickly.

## 5 Pause button (■ PAUSE)

This button can be used to temporarily stop the tape playback or recording of the tape deck.

## 6 Eject button (▲ EJECT)

This button can be used to open the cassette holder.

## 7 Reverse-side playback button (◀ PLAY)

This button can be used to start the playback or recording of side "B" of the cassette.

(The tape will then begin moving in the right-to-left direction.)

## 8 Stop button (■ STOP)

This button can be used to stop tape movement.

## 9 Forward-side playback button (▷ PLAY)

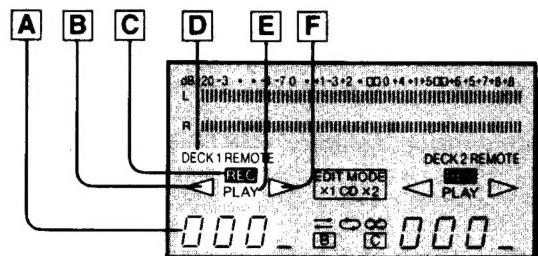
This button can be used to start the playback or recording of side "A" of the cassette.

(The tape will then begin moving in the left-to-right direction.)

10 Tape counter reset button  
(RESET 1, RESET 2)

This button can be used to reset the tape counter indication to "000".

## Indicators applicable to tape decks 1 and 2



## A Tape counter

Indicates the amount of tape movement (separately for tape deck 1 and tape deck 2).

## B Reverse-side indicator (◀)

Illuminates during playback or recording to indicate that side "B" of the tape is being used.

## C Recording indicator (REC)

This indicator illuminates to indicate that this tape deck is in the recording stand-by mode, or is recording.

## D Remote-control indicator

## (DECK 1 REMOTE, DECK 2 REMOTE)

This indicator illuminates to indicate that this tape deck can now be controlled by the remote-control transmitter (included with tuner).

## E Playback indicator (PLAY)

When this indicator illuminates steadily, it indicates that this tape deck is in the playback mode or the recording mode. When it flashes continually, this is an indication that this tape deck is in the pause mode or the recording stand-by mode. When it flashes rapidly, this is an indication that this tape deck is in the search mode.

## F Forward-side indicator (▷)

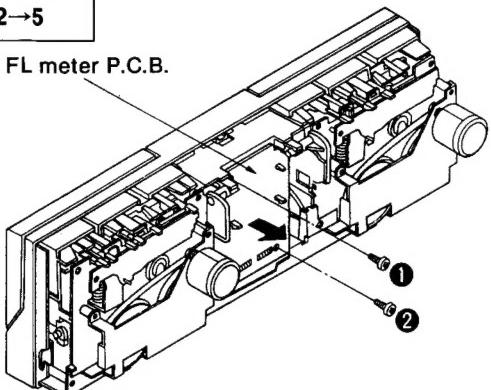
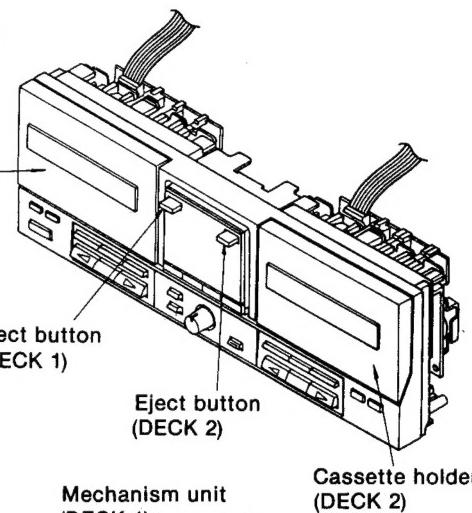
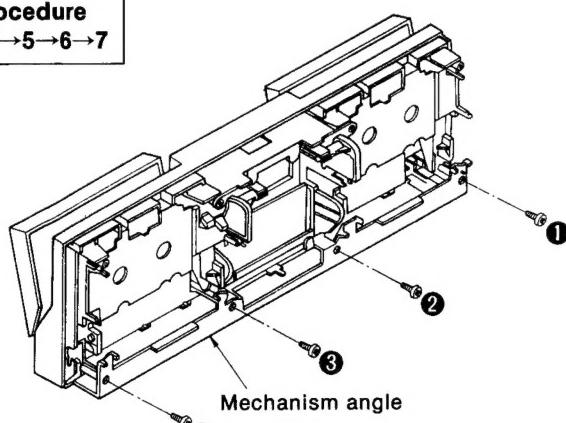
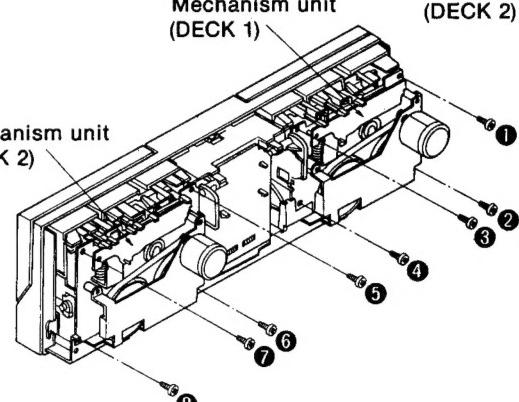
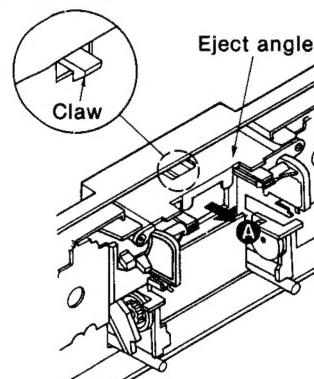
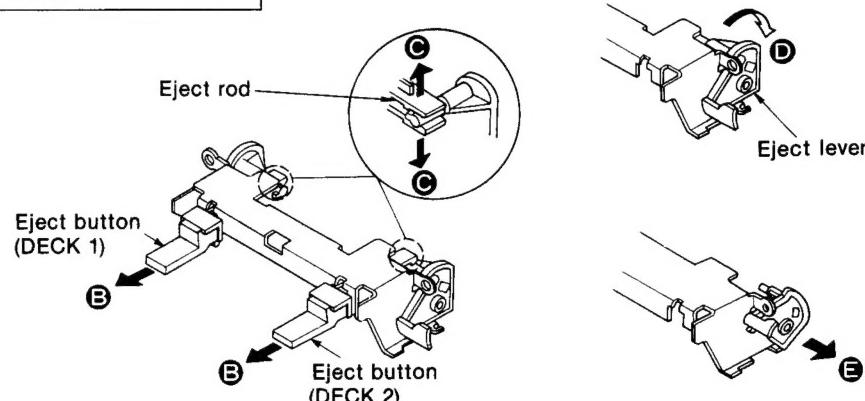
Illuminates during playback or recording to indicate that side "A" of the tape is being used.

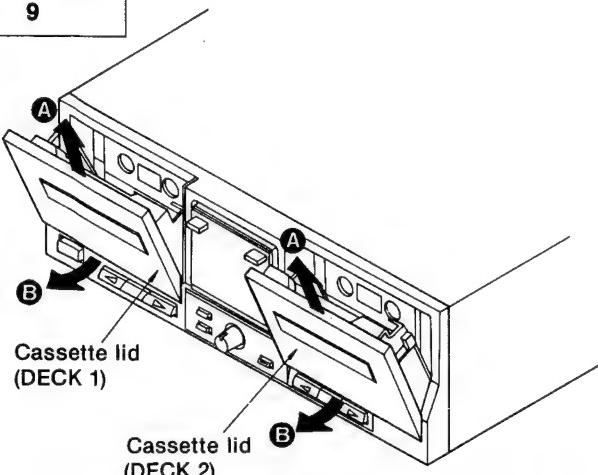
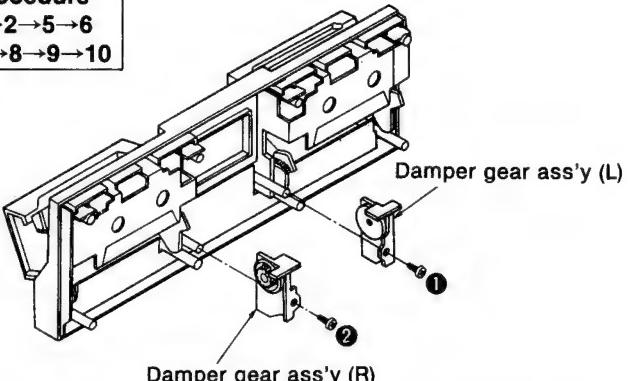
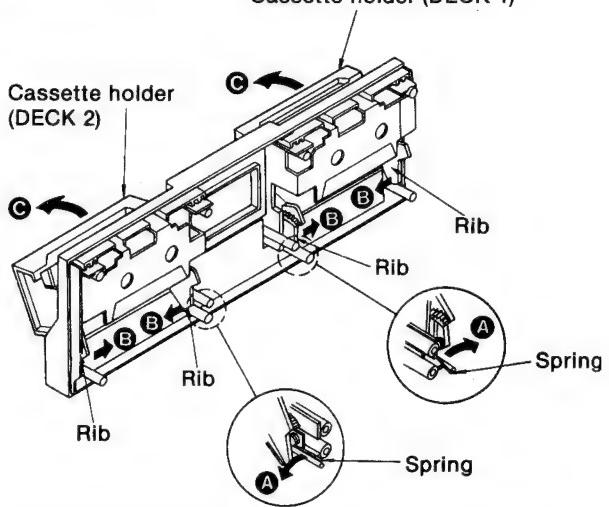
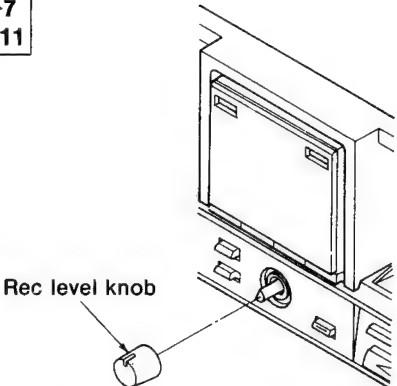
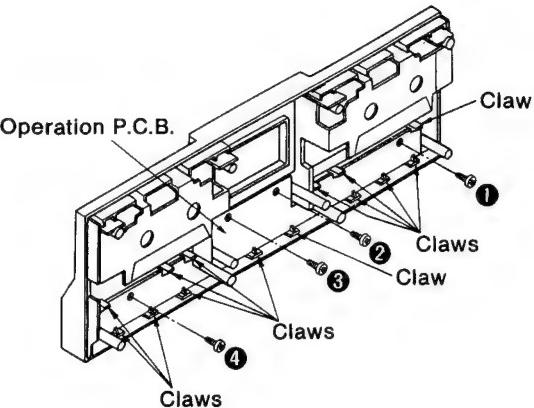
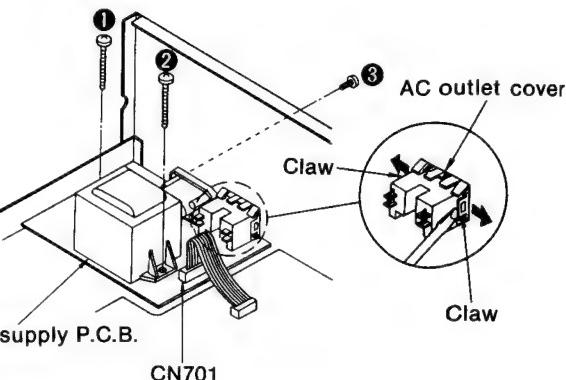
## ■ DISASSEMBLY INSTRUCTIONS

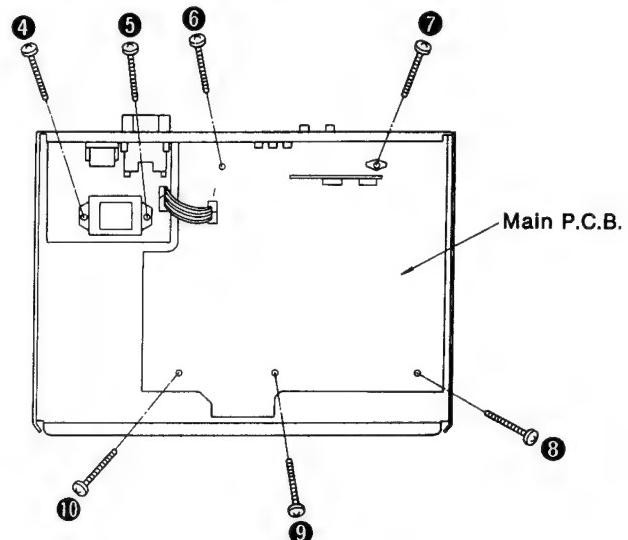
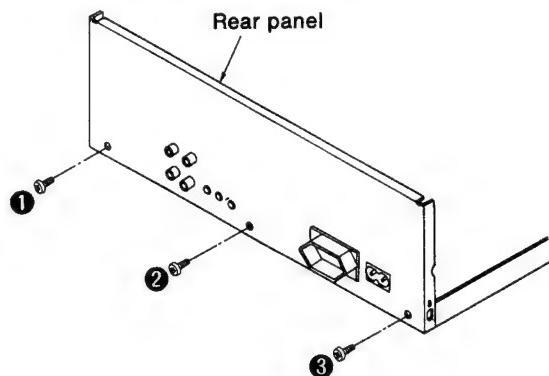
### "ATTENTION SERVICER"

Some chassis components may have sharp edges. Be careful when disassembling and servicing.

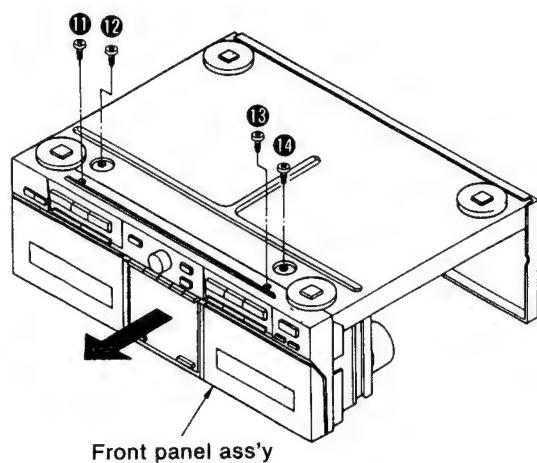
Ref. No. 1	Removal of the cabinet	Ref. No. 2	Removal of the front panel ass'y		
Procedure 1		Procedure 1→2			
<ul style="list-style-type: none"> <li>Remove the 6 screws (1~6).</li> </ul>			<ol style="list-style-type: none"> <li>Remove the 4 screws (1~4).</li> </ol>		
Ref. No. 3	Removal of the main P.C.B.				
Procedure 1→2→3					
<ol style="list-style-type: none"> <li>Remove the 1 screw (1).</li> </ol>					
			<ol style="list-style-type: none"> <li>Lift the connector.</li> <li>Pull out the flat cable. (CN4, CN6)</li> </ol>		
<ol style="list-style-type: none"> <li>Pull out the flat cable while pressing the connector. (CN3, CN5, CN8)</li> <li>Remove the 5 flat cables (CN3, CN4, CN5, CN6, CN8).</li> <li>Remove the front panel ass'y in the direction of arrow.</li> </ol>			<ol style="list-style-type: none"> <li>Remove the front panel ass'y in the direction of arrow.</li> </ol>		
How to remove the flat cable					
<p>• Pull out the flat cable while pressing the connector. (CN3, CN5, CN8)</p>					
Ref. No. 4	Removal of the rec EQ amp P.C.B.				
Procedure 1→4					
<ol style="list-style-type: none"> <li>Release the 2 claws and then remove the rec EQ amp P.C.B. in the direction of arrow.</li> </ol>					

Ref. No. 5	<b>Removal of the FL meter P.C.B.</b>	Ref. No. 6	<b>Removal of the mechanism units (DECK 1, DECK 2)</b>
<b>Procedure</b> 1→2→5		<b>Procedure</b> 1→2→6	
	<p>1. Remove the 2 screws (1, 2).</p> <p>2. Remove the FL meter P.C.B. in the direction of arrow.</p>		
Ref. No. 7	<b>Removal of the mechanism angle</b>		
<b>Procedure</b> 1→2→5→6→7			
	<p>• Remove the 4 screws (1~4).</p>		<p><b>■ Removal of the mechanism unit (DECK 1)</b></p> <p>1. Press the eject button and open the cassette holder.</p> <p>2. Remove the 4 screws (1~4).</p> <p><b>■ Removal of the mechanism unit (DECK 2)</b></p> <p>1. Press the eject button and open the cassette holder.</p> <p>2. Remove the 4 screws (5~8).</p>
Ref. No. 8	<b>Removal of the eject angle, eject buttons, and eject lever</b>		
<b>Procedure</b> 1→2→5→6→8			
	<p>1. Release the 1 claw.</p> <p>2. Pull out the eject angle in the direction of arrow A.</p>	<p>3. Pull out the claw of the eject rod in the direction of arrow B, remove the eject buttons and the eject rod in the direction of arrow C.</p>	<p>4. Turn the eject lever in the direction of arrow D, and remove the eject lever in the direction of arrow E.</p>

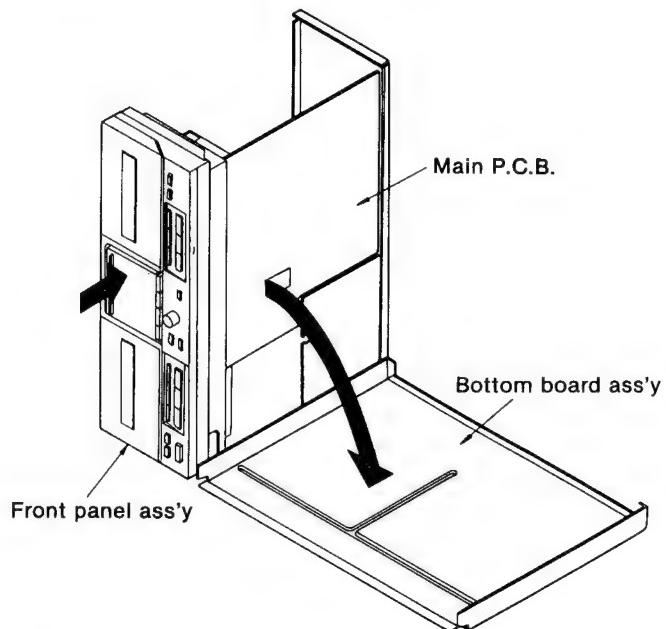
Ref. No. 9	<b>Removal of the cassette lid (DECK 1, DECK 2)</b>	Ref. No. 10	<b>Removal of the cassette holder (DECK 1, DECK 2)</b>
<b>Procedure 9</b>		<b>Procedure 1→2→5→6 →7→8→9→10</b>	
			
	<ul style="list-style-type: none"> <li>Lift the cassette lid in the direction of arrow A and remove it in the direction of arrow B.</li> </ul>		<ol style="list-style-type: none"> <li>Remove the 2 screws (1, 2).</li> <li>Remove the damper gear ass'y (L) and damper gear ass'y (R).</li> </ol>
Ref. No. 11	<b>Removal of the operation P.C.B.</b>		
<b>Procedure 1→2→5→6→7 →8→9→10→11</b>			<ol style="list-style-type: none"> <li>Remove the rec level knob in the direction of arrow A.</li> <li>Remove the 4 screws (1~4).</li> <li>Release the 14 claws.</li> </ol>
			
	<ol style="list-style-type: none"> <li>Remove the rec level knob.</li> </ol>		
		<b>Procedure 1→12</b>	
	<ol style="list-style-type: none"> <li>Remove the 4 screws (1~4).</li> <li>Release the 14 claws.</li> </ol>		<ol style="list-style-type: none"> <li>Remove the 1 flat cable (CN701).</li> <li>Remove the 3 screws (1~3).</li> <li>Release the 2 claws of the AC outlet cover.</li> </ol>

Ref. No.  
13**How to check the main P.C.B.**Procedure  
1→13

1. Remove the 3 screws (1~3).



2. Remove the 7 screws (4~10).



3. Remove the 4 screws (11~14).

4. Remove the front panel ass'y in the direction of arrow.

5. Remove the bottom board ass'y.

6. Reinstall the front panel ass'y to the main P.C.B.

## MEASUREMENTS AND ADJUSTMENTS

### Measurement Condition

- Rec. level control; Maximum
- Reverse-mode selector switch;
- Tape-to-tape recording tape-speed selector; X1
- Dolby NR selector switch; Off

- Make sure heads are clean
- Make sure capstan and pressure roller are clean
- Judgeable room temperature  $20 \pm 5^\circ\text{C}$  ( $68 \pm 9^\circ\text{F}$ )

### Measuring Instrument

- EVM (Electronic Voltmeter)
- Oscilloscope
- Digital frequency counter
- AF oscillator

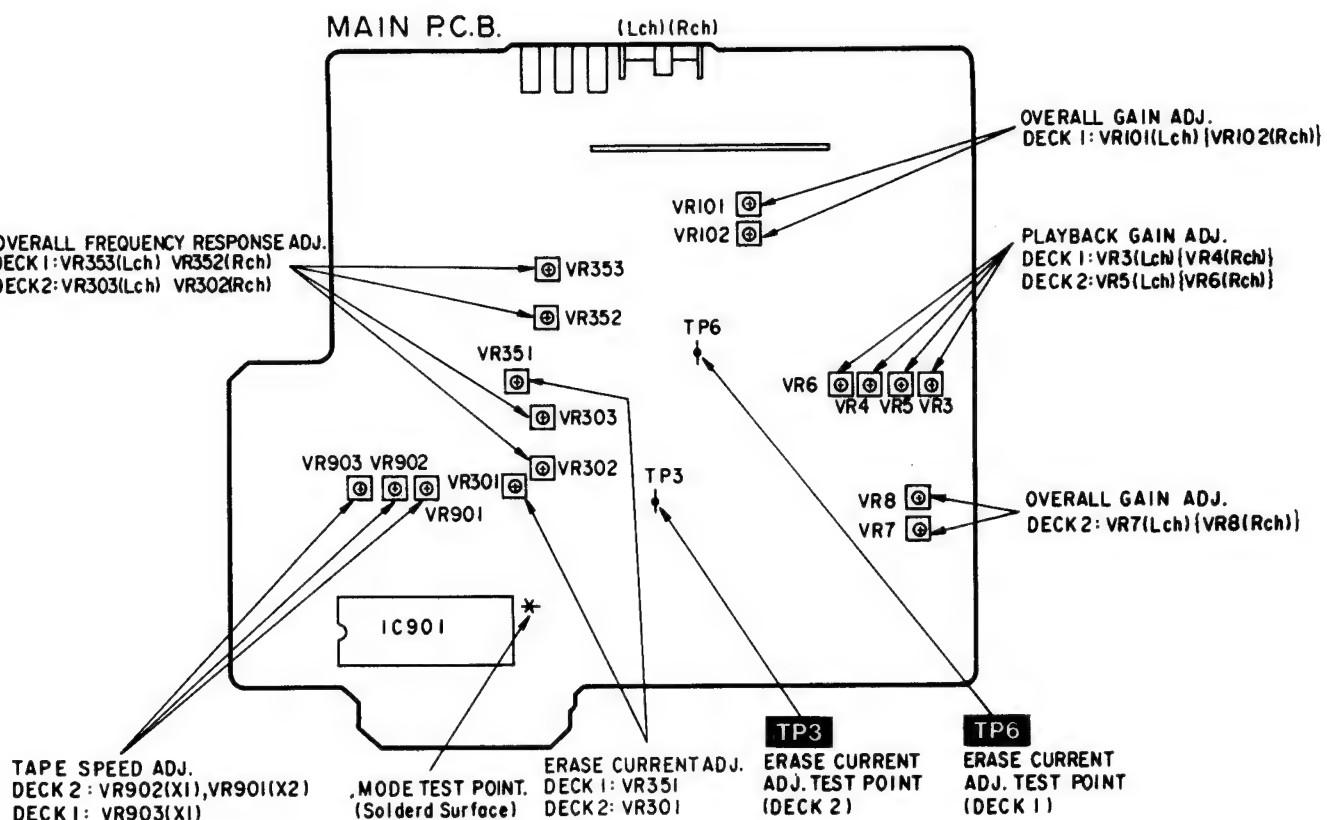
- ATT (Attenuator)
- DC voltmeter
- Resistor ( $600\Omega$ )

### Test tape

- Head azimuth adjustment (8kHz, -20dB); QZZCFM
- Tape speed adjustment (3kHz, -10dB); QZZCWAT
- Playback frequency response (315Hz, 12.5kHz, 10kHz, 8kHz, 4kHz, 1kHz, 250Hz, 125Hz, 63Hz, -20dB); QZZCFM

- Playback gain adjustment (315Hz, 0dB); QZZCFM
- Overall frequency response, Overall gain adjustment  
Normal reference blank tape ; QZZCRA  
CrO<sub>2</sub> reference blank tape; QZZCRX  
Metal reference blank tape; QZZCRZ

### • Adjustment Points



**HEAD AZIMUTH ADJUSTMENT (DECK 1/2)**

1. Playback the azimuth adjustment portion (8kHz, -20dB) of the test tape (QZZCFM). Vary the azimuth adjusting screw until the outputs of the L-CH and R-CH are maximized and the lissajous waveform, as illustrated, approaches 0 degrees.
- Note:** If L-CH and R-CH are not maximized at the same point, adjust to the point where the levels of each channel are maximized and equal.
2. Perform the same adjustment in the play mode.
3. After the adjustment, apply screwlock to the azimuth adjusting screw.

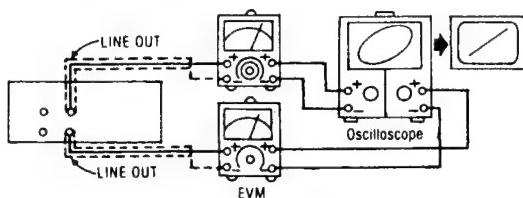


Fig. 1

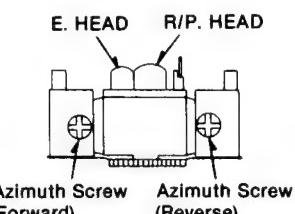


Fig. 2

**TAPE SPEED ADJUSTMENT (DECK 1/2)****Normal speed**

1. Shift the Tape-to-tape recording tape-speed selector to "X1" and press the synchro-start button.
2. Playback the middle portion of the test tape (QZZCWAT).
3. Adjust Deck 1=VR903 and Deck 2=VR902 so that the output is within the standard value.

**High speed**

4. Shift the Tape-to-tape recording tape-speed switch to "X2" and press the synchro-start button.
5. Playback the middle portion of the test tape (QZZCWAT).
6. Adjust Deck 2=VR901 so that the output is within the standard value.

**Note:** The Normal speed adjustment must be done before the High speed adjustment.

(DECK 1) Standard value:  $3000 \pm 15$  Hz [Normal (X1)],  $6000 \pm 600$  Hz [High (X2), only confirmation]

(DECK 2) Standard value:  $3000 \pm 15$  Hz [Normal (X1)],  $6000 \pm 30$  Hz [High (X2)]

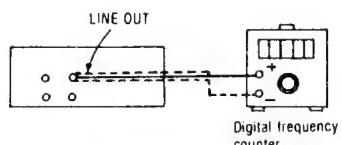


Fig. 3

**PLAYBACK GAIN ADJUSTMENT (DECK 1/2)**

1. Playback the gain adjusted portion (315Hz, 0dB) of the test tape (QZZCFM).
2. Adjust Deck 1=VR3 (L-CH) [[VR4 (R-CH)]] and Deck 2=VR5 (L-CH) [[VR6 (R-CH)]] so that the output is within the standard value.

**Standard value:  $0.4V \pm 0.5dB$**

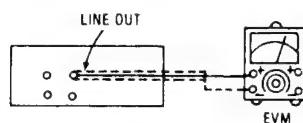


Fig. 4

**PLAYBACK FREQUENCY RESPONSE (DECK 1/2)**

1. Playback the frequency response portion (315Hz, 12.5kHz~63Hz, -20dB) of the test tape (QZZCFM).
2. Assure that the frequency response is within the range shown in Fig. 6 for both L-CH and R-CH.

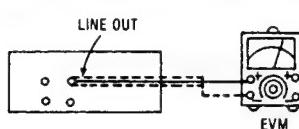


Fig. 5

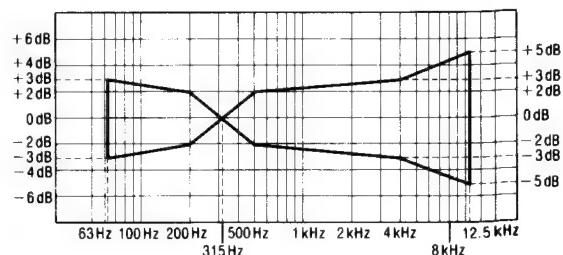


Fig. 6

**ERASE CURRENT ADJUSTMENT (DECK 1/2)**

1. Insert the Metal blank test tape (QZZCRZ) and set the unit to the Record Pause mode.
2. Adjust Deck 1=VR351 (Deck 2=VR301) so that the output between Deck 1=TP6 (Deck 2=TP3) and GND is within the standard value.

**Standard value:  $190 \pm 5\text{mA}$  (Metal)...EVM Reading:  $190 \pm 5\text{mV}$**

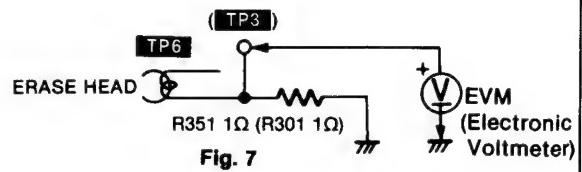


Fig. 7

**OVERALL FREQUENCY RESPONSE (DECK 1/2)**

1. Insert the Normal blank test tape (QZZCRA) and set the unit to the Record Pause mode.
2. Apply a reference input signal (1kHz, -24dB) through an attenuator.
3. Attenuate the signal by 20dB and adjust the frequency from 50Hz~10kHz.
4. Record the frequency sweep.
5. Playback the recorded signal and assure that it is within the range shown in Fig. 8 in comparison to the reference frequency (1kHz).
6. If it is not within the standard range, adjust Deck 1=VR353 (Deck 2=VR303) (L-CH) and Deck 1=VR352 (Deck 2=VR302) (R-CH) so that the frequency level is within the standard range.
  - Level up in high frequency range .....Increase the bias current.
  - Level down in high frequency range ...Decrease the bias current.
7. Repeat steps 2~6 above using the CrO<sub>2</sub> tape (QZZCRX) and the Metal tape (QZZCRZ) increasing the frequency range to 12.5kHz (50Hz~12.5kHz).
8. Assure that the level is within the range shown in Fig. 9.

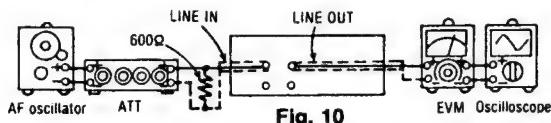


Fig. 10

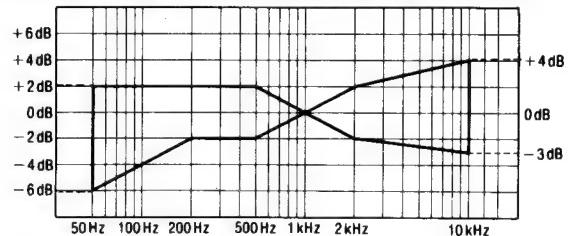
**Normal Overall frequency response chart (NR OUT)**

Fig. 8

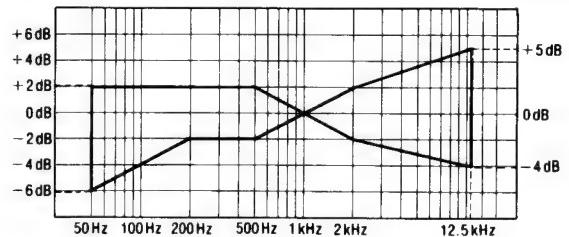
**CrO<sub>2</sub> Metal Overall frequency response chart (NR OUT)**

Fig. 9

**OVERALL GAIN ADJUSTMENT (DECK 1/2)**

1. Insert the Normal blank test tape (QZZCRA) and set the unit to the Record pause mode.
2. Apply a reference input signal (1kHz, -24dB). Attenuate the output so that its level becomes 0.4V.
3. Record this input signal.
4. Playback the signal recorded in step 3 above, and assure that the output is within the standard value.
5. If it is not within the standard value, adjust Deck 1=VR101 (Deck 2=VR7) (L-CH) and Deck 1=VR102 (Deck 2=VR8) (R-CH).
6. Repeat the step 2~5 above until the output is within the standard value.

**Standard value:  $0.4\text{V} \pm 0.5\text{dB}$**

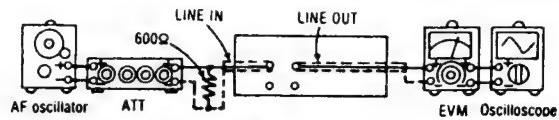
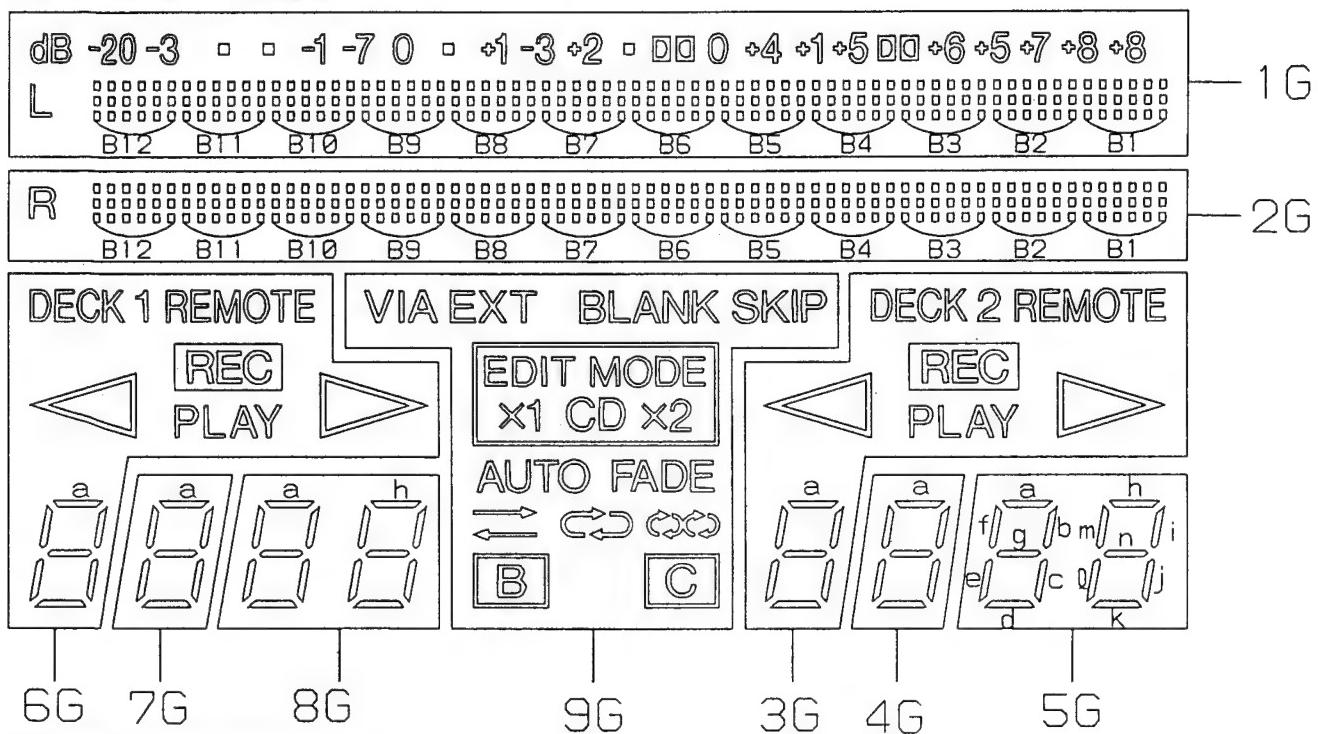


Fig. 11

## ■ INTERNAL CONNECTION OF FL

- Grid connection diagram



- Anode connection table

	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	CD	n	-	PLAY	n	-	PLAY	B1	B1
P2	CD	j	-	PLAY	j	-	PLAY	B2	B2
P3	CD	l	-	PLAY	l	-	PLAY	B3	B3
P4	EDIT MODE	k	-	DECK 1 REMOTE	k	-	DECK 2 REMOTE	B4	B4
P5	CD	h	-	REC	h	-	REC	B5	B5
P6	X2	a	a	a	a	a	a	B6	B6
P7	X1	b	b	b	b	b	b	B7	B7
P8	-	f	f	f	f	f	f	B8	B8
P9	B	g	g	g	g	g	g	B9	B9
P10	C	c	c	c	c	c	c	B10	B10
P11	VIA EXT	e	e	e	e	e	e	B11	B11
P12	BLANK SKIP	d	d	d	d	d	d	B12	B12
P13	-	i	-	-	i	-	-	-	S1
P14	-	m	-	-	m	-	-	-	S2
P15	-	-	-	-	-	-	-	R	dB
P16	AUTO FADE	-	-	-	-	-	-	-	-

- Pin connection

PIN NO.	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	F 2	F 2	N P	N P	P 15	P 12	P 11	P 10	P 9	P 8	P 7	P 6	P 5	P 4	P 3	P 2	P 1	P 16	P 14	P 13	N C	9 G	8 G	7 G	6 G	5 G	4 G	3 G	2 G	1 N P	N F F			

**Note**

1) F1, F2 .....Filament  
2) NP .....No pin

3) NC .....No connection  
4) 1G~9G .....Grid

## **PRINTED CIRCUIT BOARDS**

.A

B

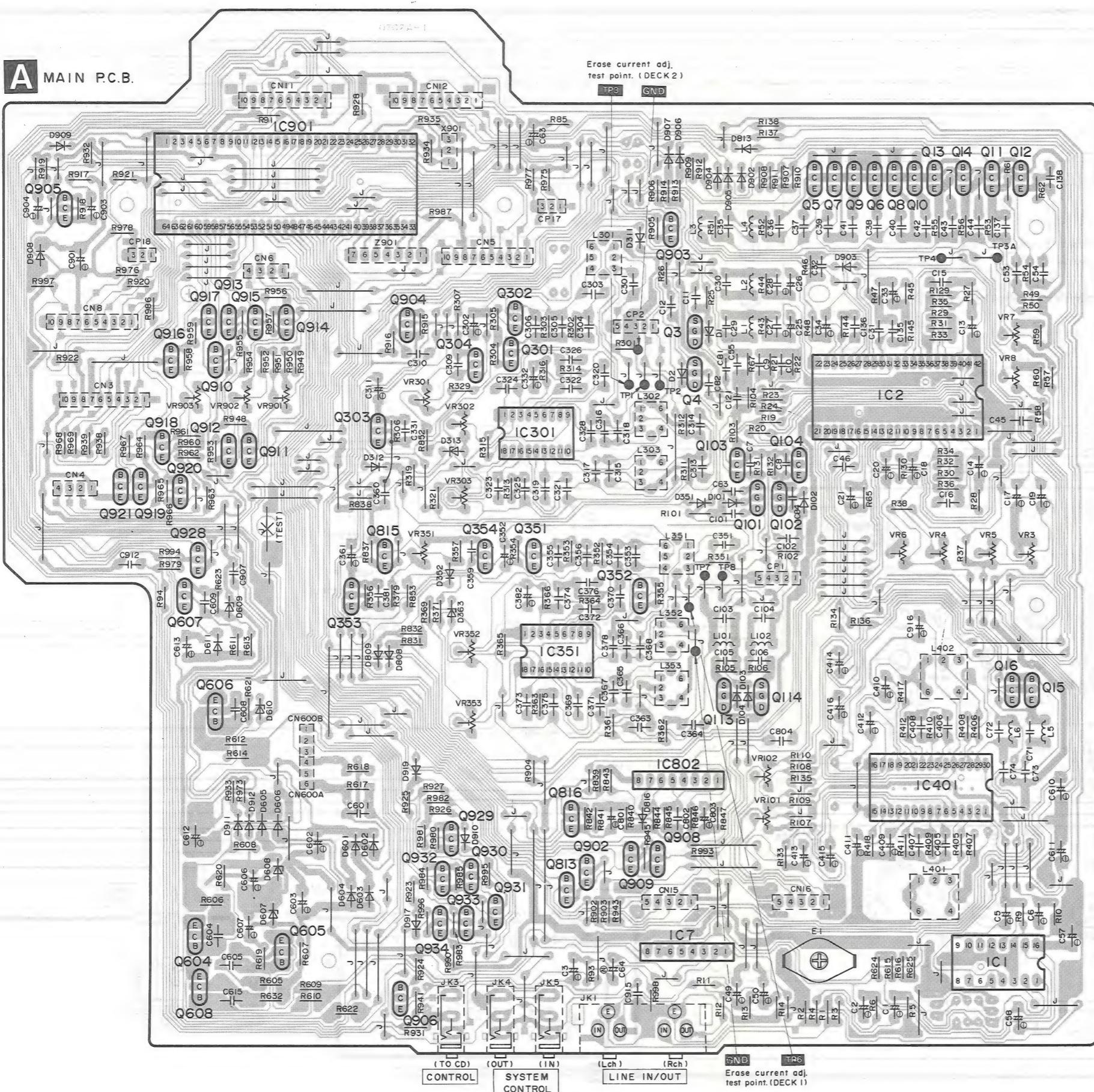
C

D

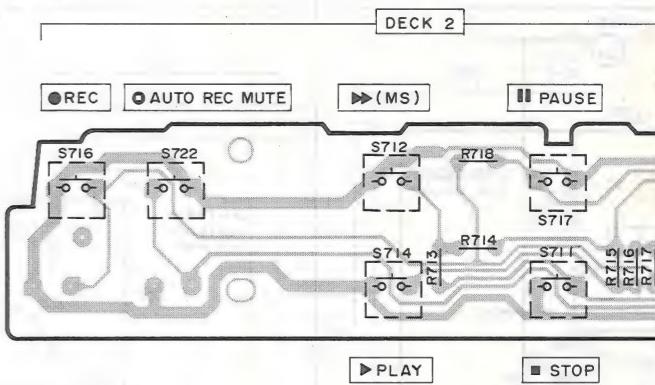
E

F

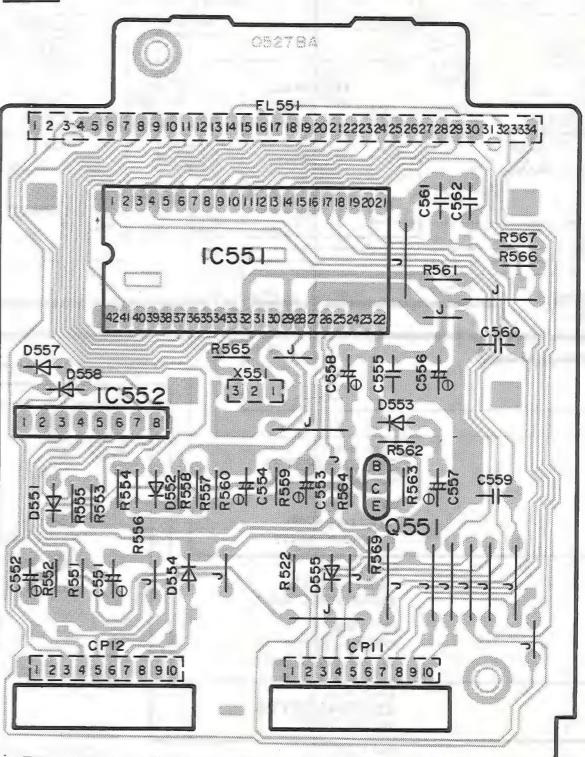
**A** MAIN P.C.B.



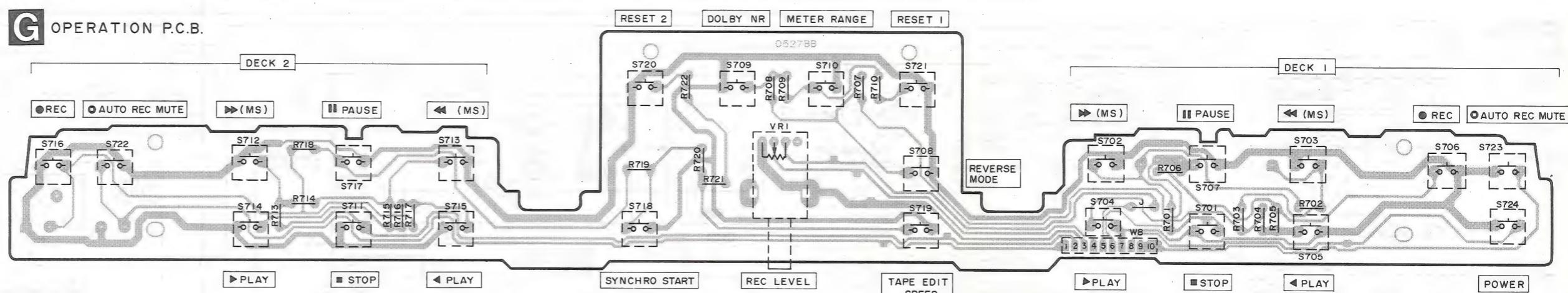
# G OPERATION P.C.B.



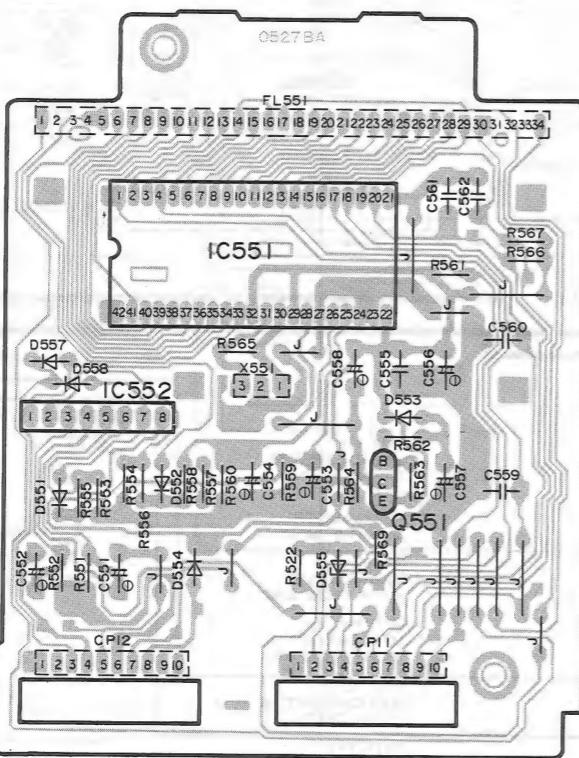
**F** FL METER P.C.B.



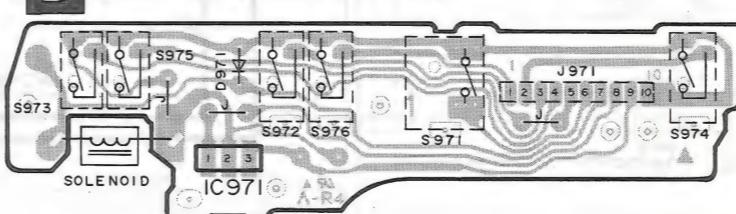
## G OPERATION P.C.B.



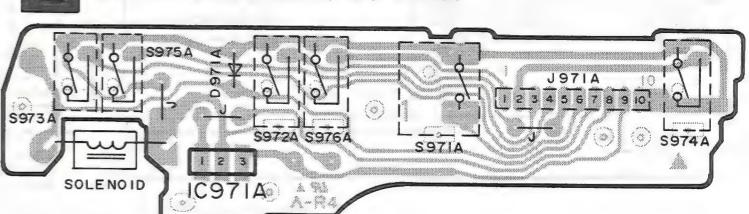
**F** FL METER P.C.B.



D MECHANISM (DECK I) P.C.B.



E MECHANISM(DECK 2) P.C.B.



12

13

14

15

16

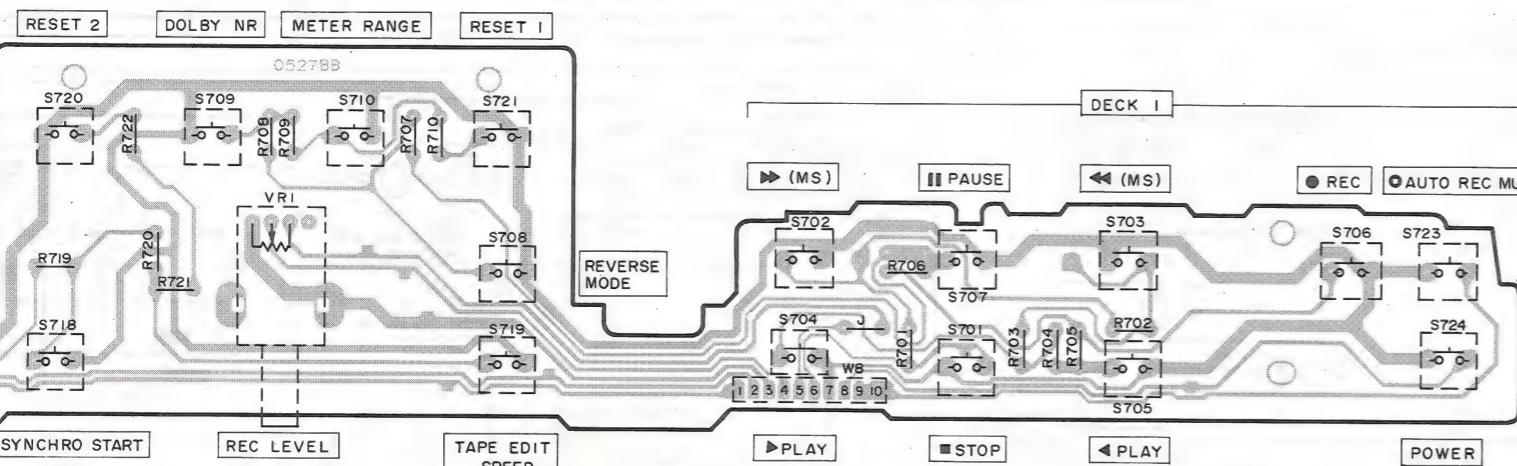
17

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## SCHEMATIC DIAGRAM (Parts list on pages 32~36.)

(This schematic diagram may be modified at any time with development of new technology.)

## Notes:

- S701: DECK 1 Stop switch (■ STOP).
- S702: DECK 1 Fast-forward switch (MS ▶▶).
- S703: DECK 1 Rewind switch (◀◀ MS).
- S704: DECK 1 Forward-side playback switch (▷ PLAY).
- S705: DECK 1 Reverse-side playback switch (◁ PLAY).
- S706: DECK 1 Record switch (● REC).
- S707: DECK 1 Pause switch (■ PAUSE).
- S708: Reverse mode switch (REVERSE MODE; —, —, ○○○).
- S709: Dolby noise-reduction selector switch (Dolby NR; B, C).
- S710: Meter-range selector switch (METER RANGE).
- S711: DECK 2 Stop switch (■ STOP).
- S712: DECK 2 Fast-forward switch (MS ▶▶).
- S713: DECK 2 Rewind switch (◀◀ MS).
- S714: DECK 2 Forward-side playback switch (▷ PLAY).
- S715: DECK 2 Reverse-side playback switch (◁ PLAY).
- S716: DECK 2 Record switch (● REC).
- S717: DECK 2 Pause switch (■ PAUSE).
- S718: Synchro-start switch (SYNCHRO START).
- S719: Tape-to-tape recording tape-speed selector switch (TAPE EDIT SPEED).
- S720: DECK 2 Tape counter reset 2 switch (RESET 2).
- S721: DECK 1 Tape counter reset 1 switch (RESET 1).
- S722: DECK 2 Automatic-record-muting switch (● AUTO REC MUTE).
- S723: DECK 1 Automatic-record-muting switch (● AUTO REC MUTE).
- S724: Power switch in "on" position (POWER, STANDBY ⏪/ON).
- S971: DECK 1 Mode switch in "off" position.
- S972: DECK 1 Cassette half detection switch in "off" position.
- S973: DECK 1 Reverse rec. inhibit switch in "off" position.
- S974: DECK 1 Forward rec. inhibit switch in "off" position.
- S975: DECK 1 ATS ( $\text{CrO}_2$ ) switch in "off" position.
- S976: DECK 1 ATS (Metal) switch in "off" position.
- S971A: DECK 2 Mode switch in "off" position.
- S972A: DECK 2 Cassette half detection switch in "off" position.
- S973A: DECK 2 Reverse rec. inhibit switch in "off" position.
- S974A: DECK 2 Forward rec. inhibit switch in "off" position.
- S975A: DECK 2 ATS ( $\text{CrO}_2$ ) switch in "off" position.
- S976A: DECK 2 ATS (Metal) switch in "off" position.
- Resistance are in ohms ( $\Omega$ ), 1/4 watt unless specified otherwise.  
1K=1,000 ( $\Omega$ ), 1M=1,000k ( $\Omega$ )
- Capacity are in micro-farads ( $\mu\text{F}$ ) unless specified otherwise.
- All voltage values shown in circuitry are under no signal condition and playback mode with volume control at minimum position otherwise specified.  
(—).....Voltage values at record mode.

For measurement us EVM.

## Important safety notice

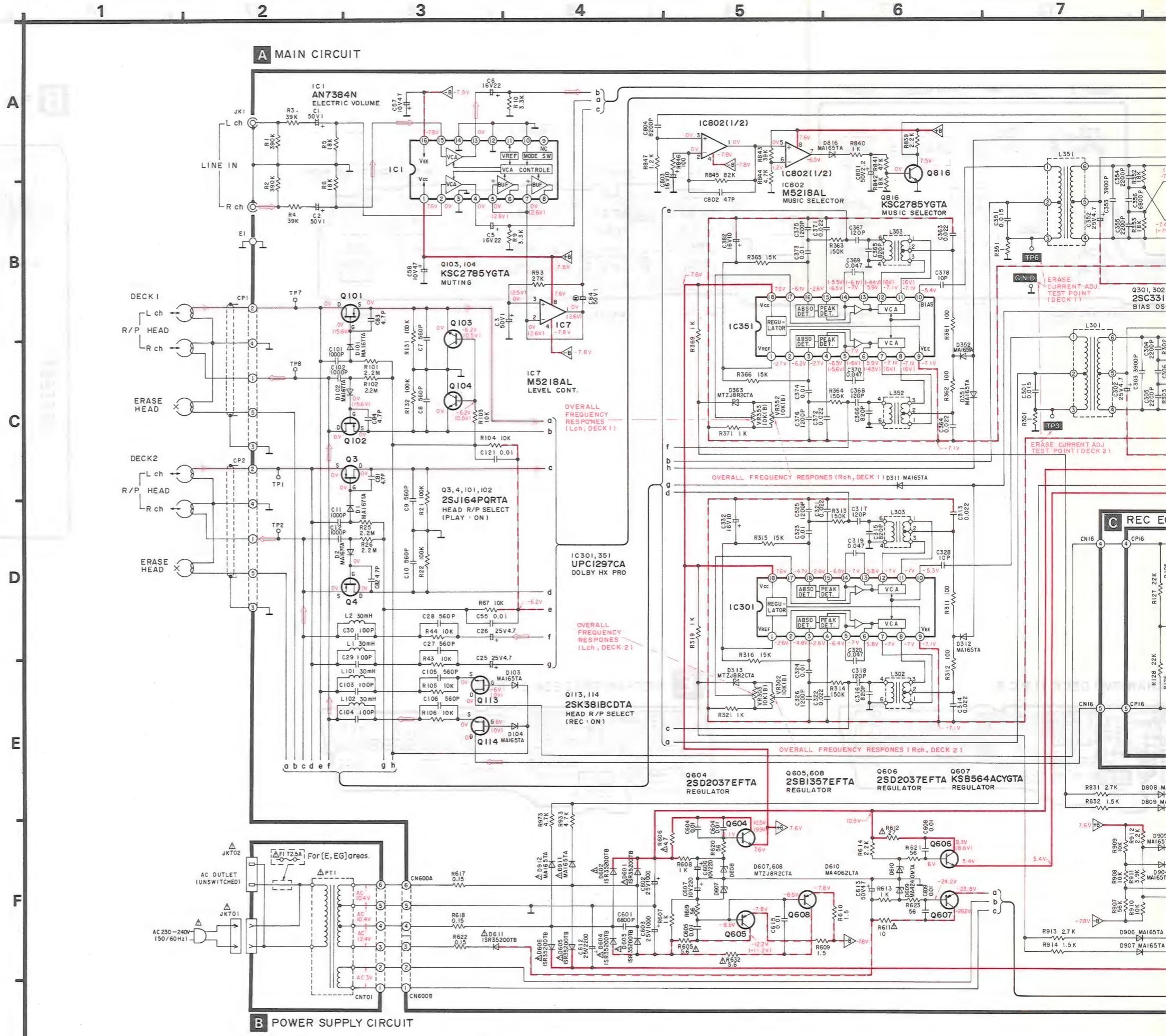
Components identified by  $\Delta$  mark have special characteristics important for safety.  
When replacing any of these components, use only manufacturer's specified parts.

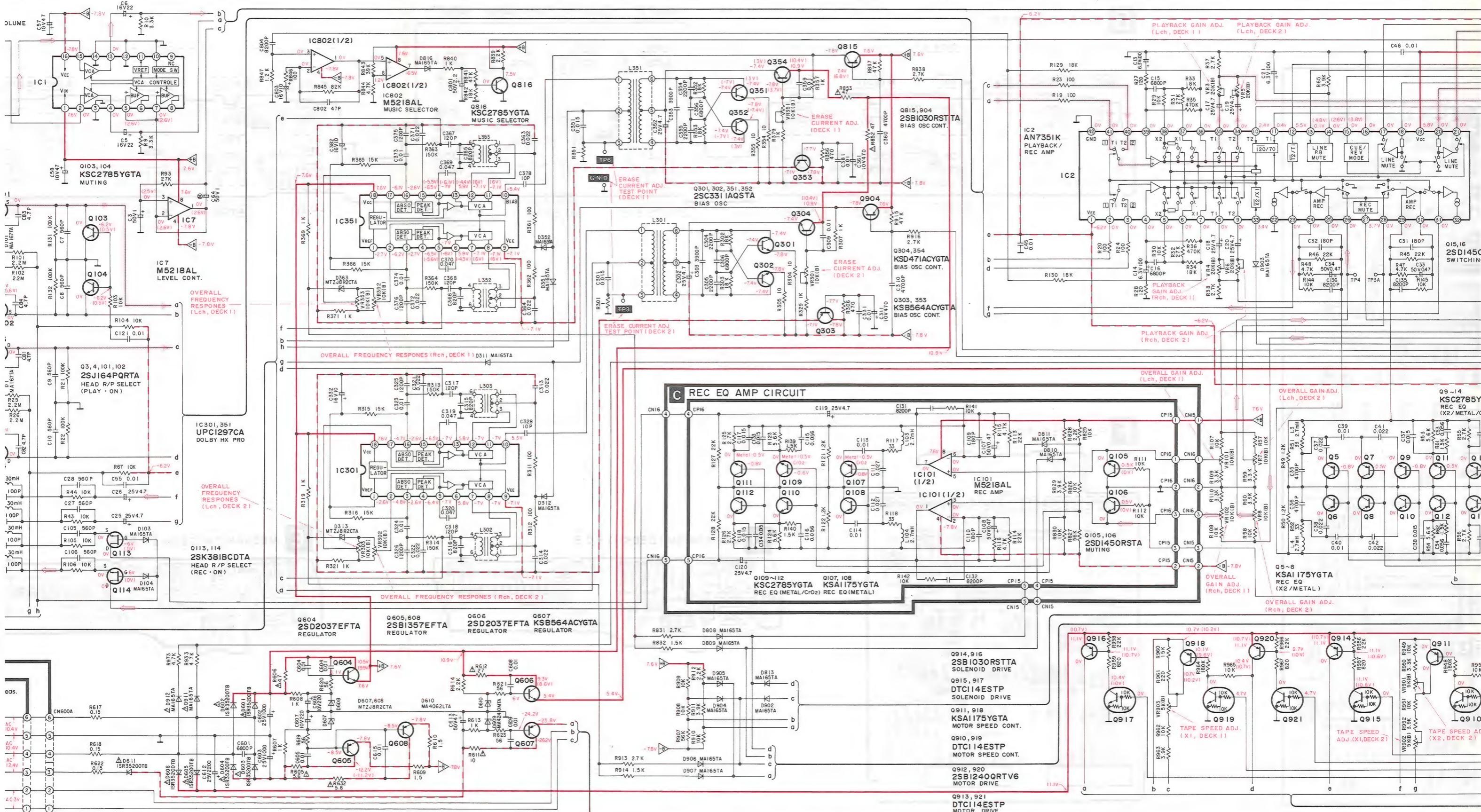
- (— +B —) indicates +B (bias).
- (— -B —) indicates -B (bias).
- (— —) indicates the flow of the playback signal.
- (— —) indicates the flow of the record signal.
- The supply part number is described alone in the replacement parts list.

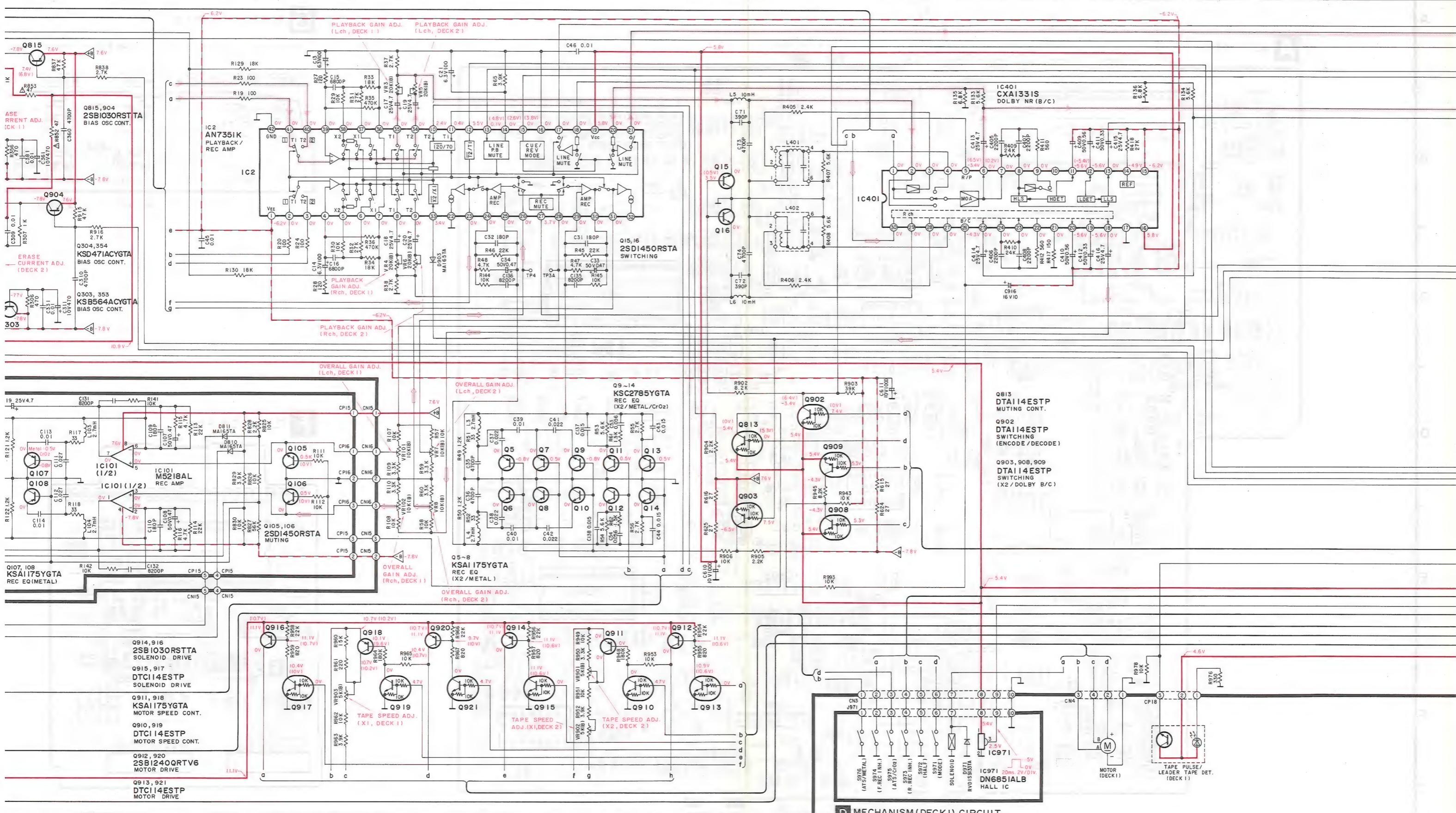
Ref. No.	Production Part No.	Supply Part No.
IC7, 101, 552, 802	M5218AL	M5218L

## Caution!

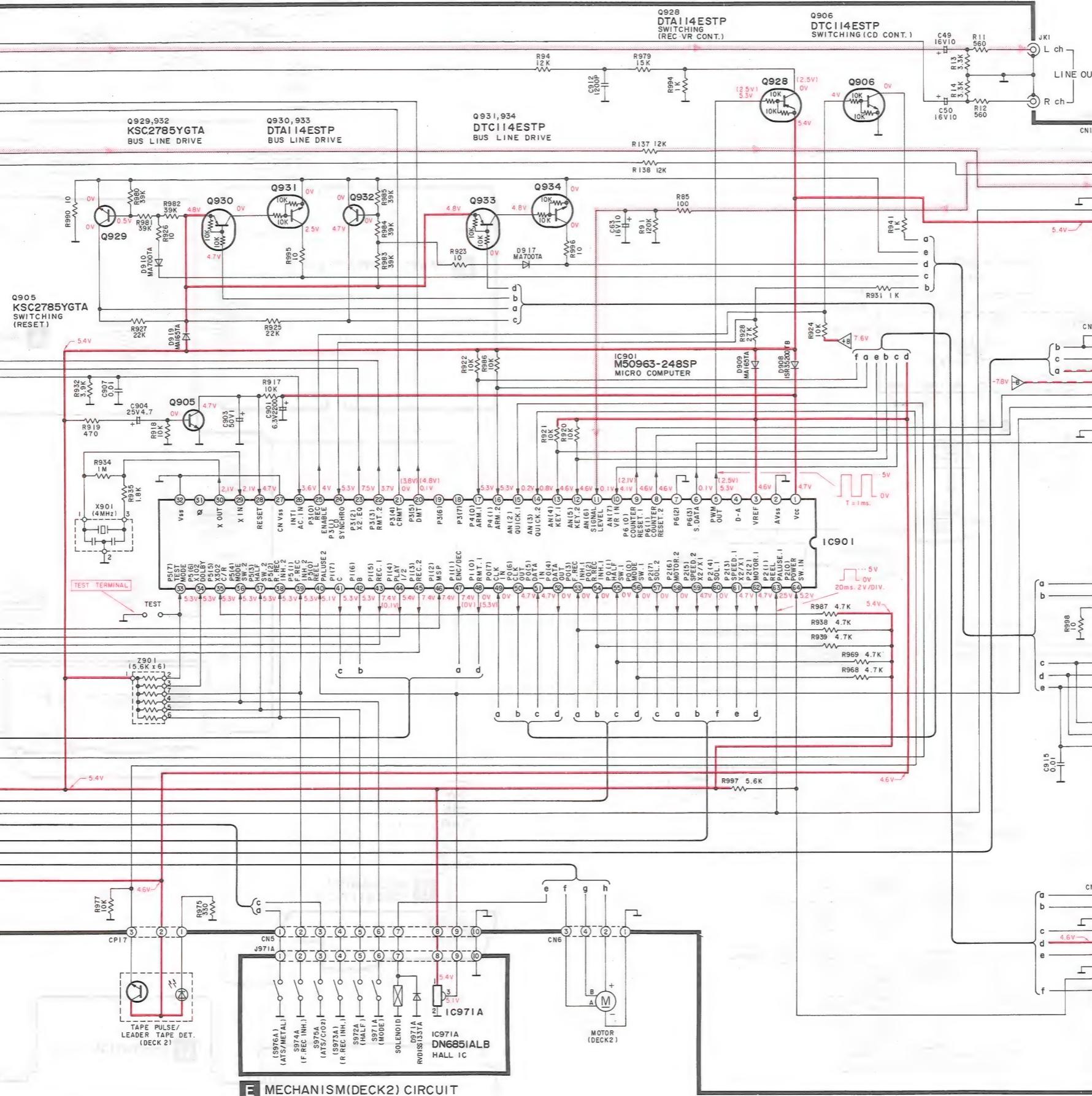
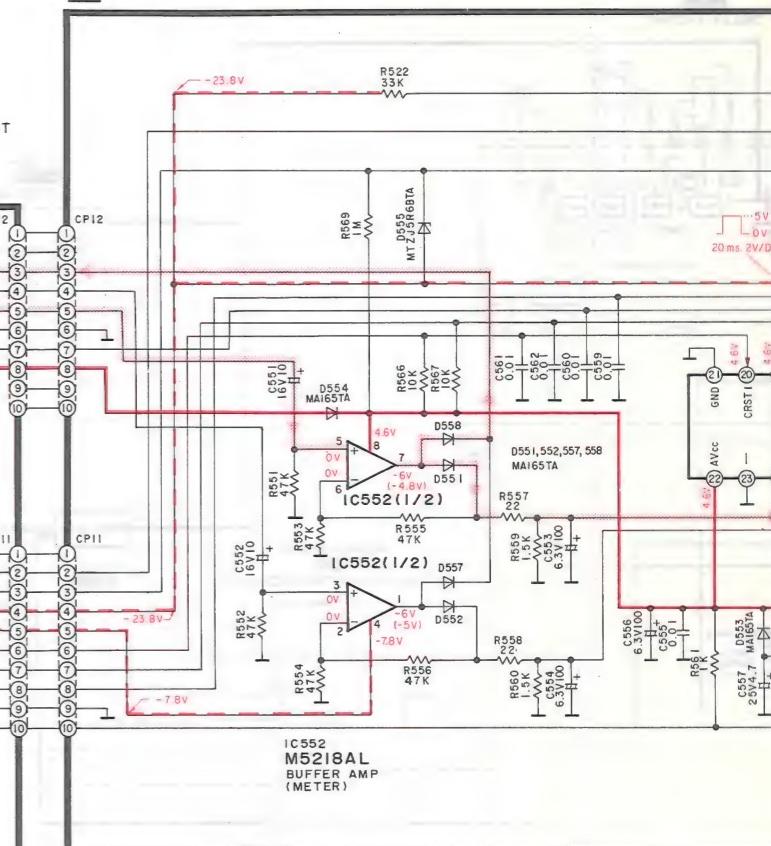
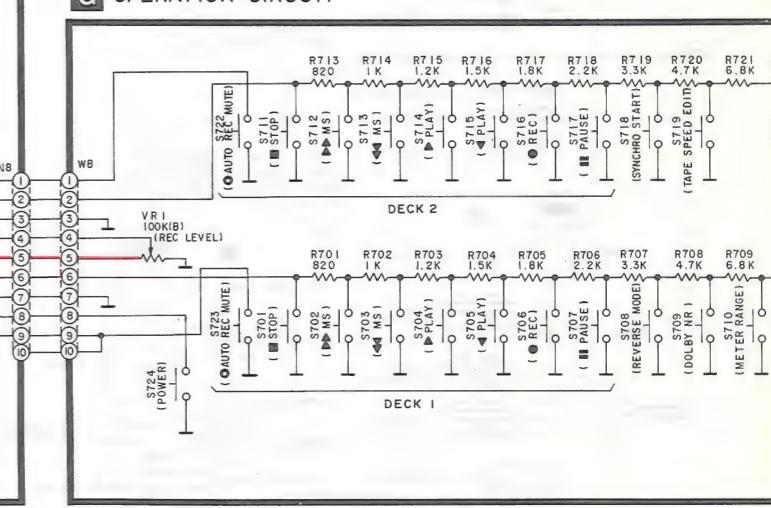
- IC and LSI are sensitive to static electricity.  
Secondary trouble can be prevented by taking care during repair.  
\* Cover the parts boxes made of plastics with aluminum foil.  
\* Ground the soldering iron.  
\* Put a conductive mat on the work table.  
\* Do not touch the legs of IC or LSI with the fingers directly.



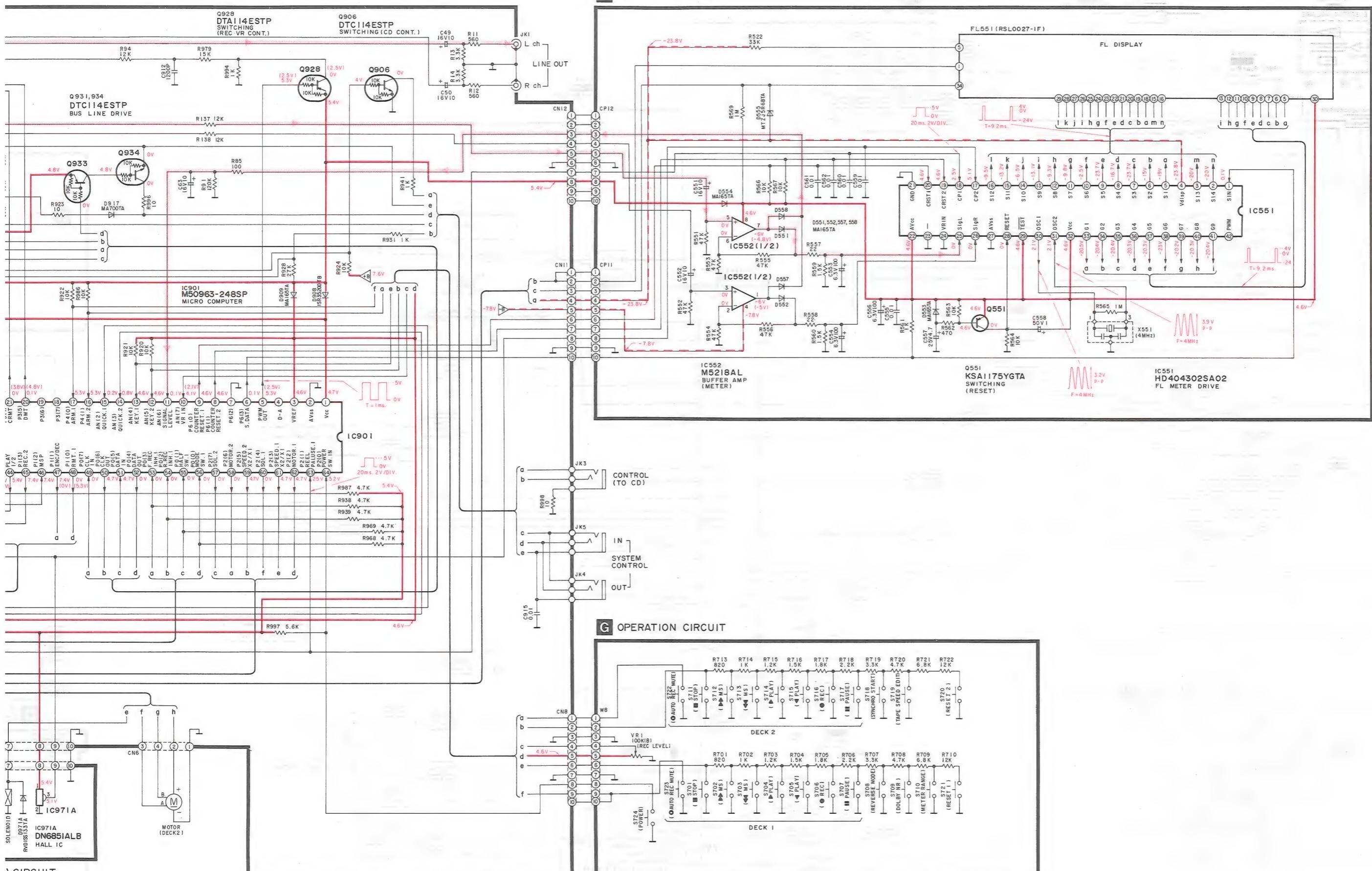




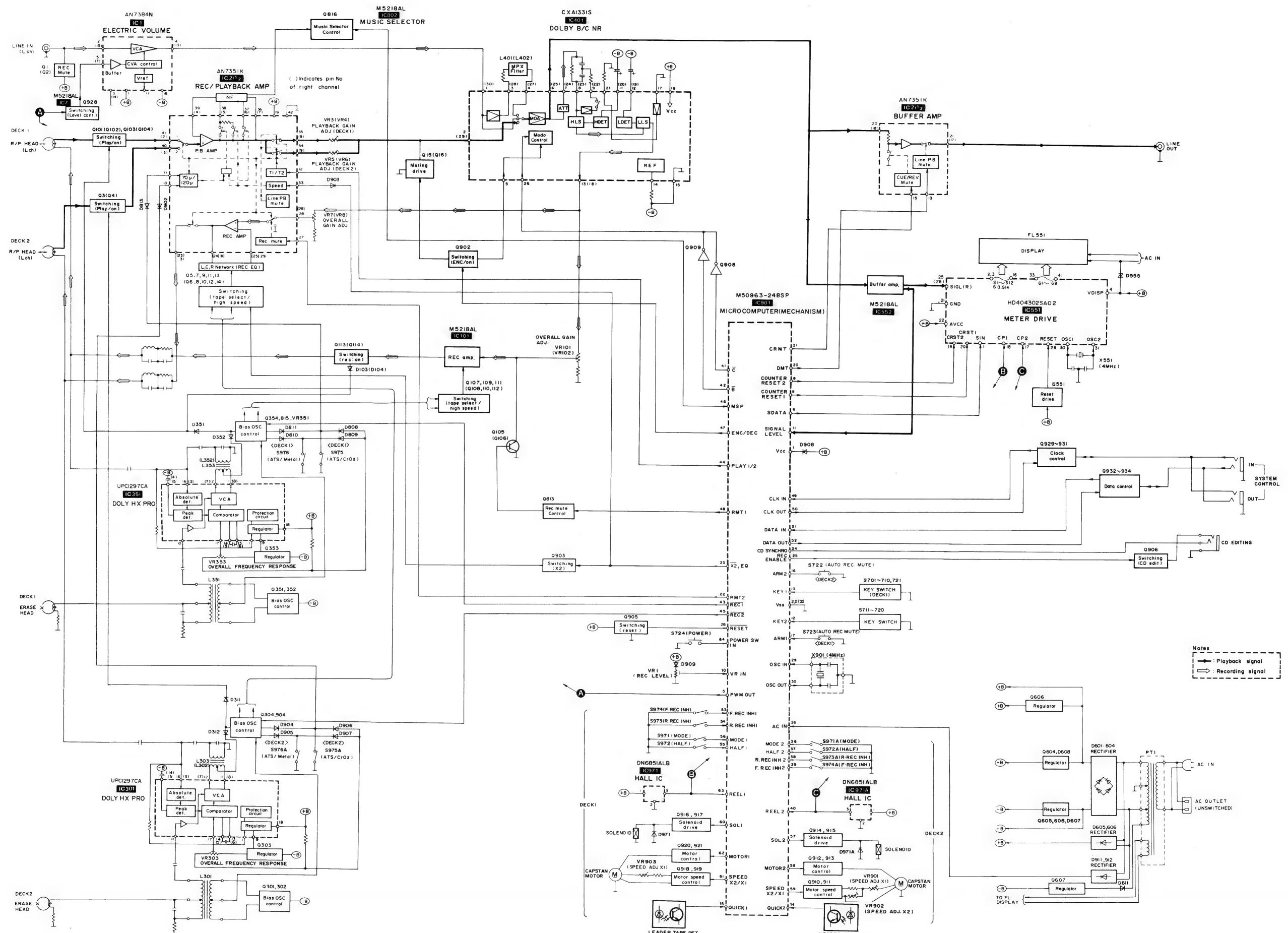
D MECHANISM(DECK1) CIRCUIT

**F FL METER CIRCUIT****G OPERATION CIRCUIT**

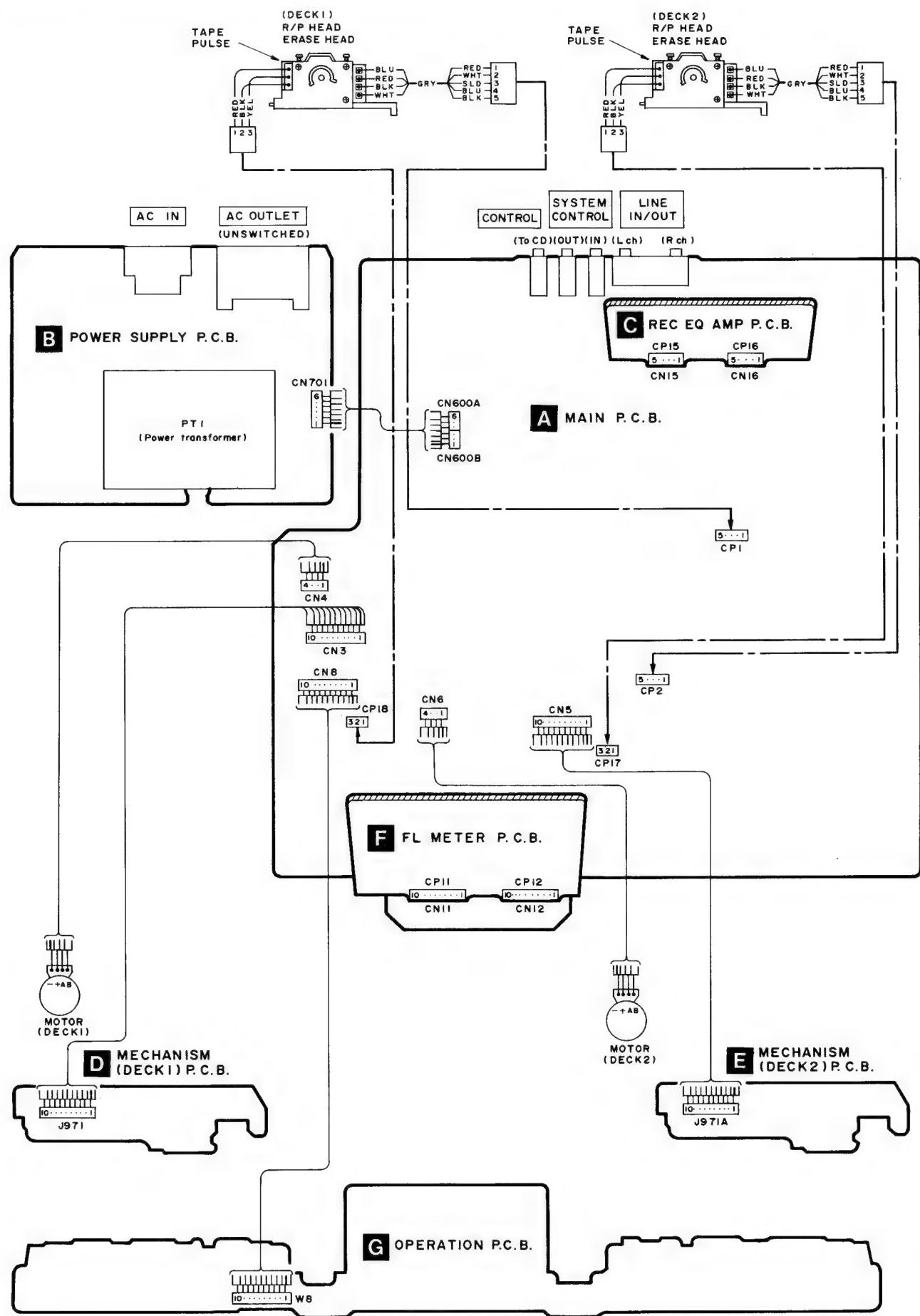
**F** FL METER CIRCUIT



## BLOCK DIAGRAM



## ■ WIRING CONNECTION DIAGRAM



## ■ TERMINAL FUNCTION OF IC'S

- IC901 (M50963-248SP): MICROCOMPUTER (This microcomputer is used for mechanical operation.)

Pin No.	Mark	I/O Division	Function
1	V <sub>CC</sub>	I	Power supply terminal
2	A V <sub>SS</sub> (GND)	—	GND terminal
3	V <sub>REF</sub>	I	Reference voltage terminal
4	D-A	—	Not used, open
5	PWM	O	Pulse width modulated signal
6	P6 (3)	O	Serial signal for FL display
7	P6 (2)	—	Not used, open
8	P6 (1)	O	Counter reset signal of deck 2 ("RESET": "L", others: "H")
9	P6 (0)	O	Counter reset signal of deck 1 ("RESET": "L", others: "H")
10	AN (7)	I	Variable voltage level signal of rec. level volume
11	AN (6)	I	Peak voltage terminal of rec. signal
12	AN (5)	I	Operation key switches Deck 2: STOP, F.F./REW, PLAY, REC, PAUSE, SYNCHRO START, X1/X2, counter reset
13	AN (4)	I	Operation key switches Deck 1: STOP, F.F./REW, F. PLAY, R. PLAY, REC, PAUSE, Reverse-mode, Dolby B/C, Meter-range, counter reset
14	AN (3)	I	Leader tape det. signal of deck 2
15	AN (2)	I	Leader tape det. signal of deck 1
16	P4 (1)	I	"AUTO REC MUTE" key switch signal of deck 2 ("ON": "L", "OFF": "H")
17	P4 (0)	I	"AUTO REC MUTE" key switch signal of deck 1 ("ON": "L", "OFF": "H")
18	P3 (7)	—	Not used
19	P3 (6)	—	Not used
20	P3 (5)	O	Mute signal of line out (Mute "ON": "H", Mute "OFF": "L")
21	P3 (4)	O	Mute signal with Cue/Review action (Mute "ON": "H", Mute "OFF": "L")
22	P3 (3)	O	Rec. mute signal of deck 2 (Mute "ON": "H", Mute "OFF": "L")

Pin No.	Mark	I/O Division	Function
23	P3 (2)	O	Playback equalizer select signal with tape edit of deck 1 (Normal: "H", X2 edit: "L")
24	P3 (1)	I	CD Synchro rec. signal (CD STOP: "H", CD PLAY: "L")
25	P3 (0)	O	CD Synchro rec. possible/impossible signal (possible: "L", impossible: "H")
26	INTI	I	"AC POWER OFF" det. terminal
27	CNV <sub>SS</sub>	—	GND terminal
28	RESET	I	Reset signal ("L"=RESET, Normal: "H")
29	X <sub>IN</sub>	I	Clock OSC terminal
30	X <sub>OUT</sub>	O	
31	φ	—	Not used, open
32	V <sub>SS</sub>	—	GND terminal
33	P5 (7)	I	Test terminal (Normal="H")
34	P5 (6)	I	Model select (Normal: "H")
35	P5 (5)	I	Model select (Normal: "H")
36	P5 (4)	I	Mechanism mode switch ("ON": "L", "OFF": "H")
37	P5 (3)	I	Cassette half det. switch ("ON": "L", "OFF": "H")
38	P5 (2)	I	Reverse rec. inh. switch of deck 2 ("ON": "L", "OFF": "H")
39	P5 (1)	I	Forward rec. inh. switch of deck 2 ("ON": "L", "OFF": "H")
40	P5 (0)	I	Reel rotation pulse signal of deck 2
41	P1 (7)	O	Dolby C "ON/OFF" select signal ("ON": "L", "OFF": "H")
42	P1 (6)	O	Dolby B "ON/OFF" select signal ("ON": "L", "OFF": "H")
43	P1 (5)	O	Bias OSC "ON/OFF" select signal ("ON": "L", "OFF": "H")
44	P1 (4)	O	Playback amp. select signal (Deck 2-P.B: "L", others: "H")
45	P1 (3)	O	Bias OSC "ON/OFF" select signal ("ON": "L", "OFF": "H")
46	P1 (2)	I	Playback signal det. output signal ("ON": "L", "OFF": "H")

Pin No.	Mark	I/O Division	Function
47	P1 (1)	O	Dolby circuit encord/decord select signal (encord: "L", decord: "H")
48	P1 (0)	O	Rec. mute signal of deck 2 (Mute "ON": "H", Mute "OFF": "L")
49	P0 (7)	I	Bus clock signal
50	P0 (6)	O	
51	P0 (5)	I	Bus data signal
52	P0 (4)	O	
53	P0 (3)	I	Forward rec. inh. switch of deck 1 ("ON": "L", "OFF": "H")
54	P0 (2)	I	Reverse rec. inh. switch of deck 1 ("ON": "L", "OFF": "H")
55	P0 (1)	I	Cassette-half det. switch of deck 1 ("ON": "L", "OFF": "H")
56	P0 (0)	I	Mechanism mode-switch of deck 1 ("ON": "L", "OFF": "H")
57	P2 (7)	O	Mechanism plunger "ON/OFF" select signal of deck 2 ("ON": "H", "OFF": "L")

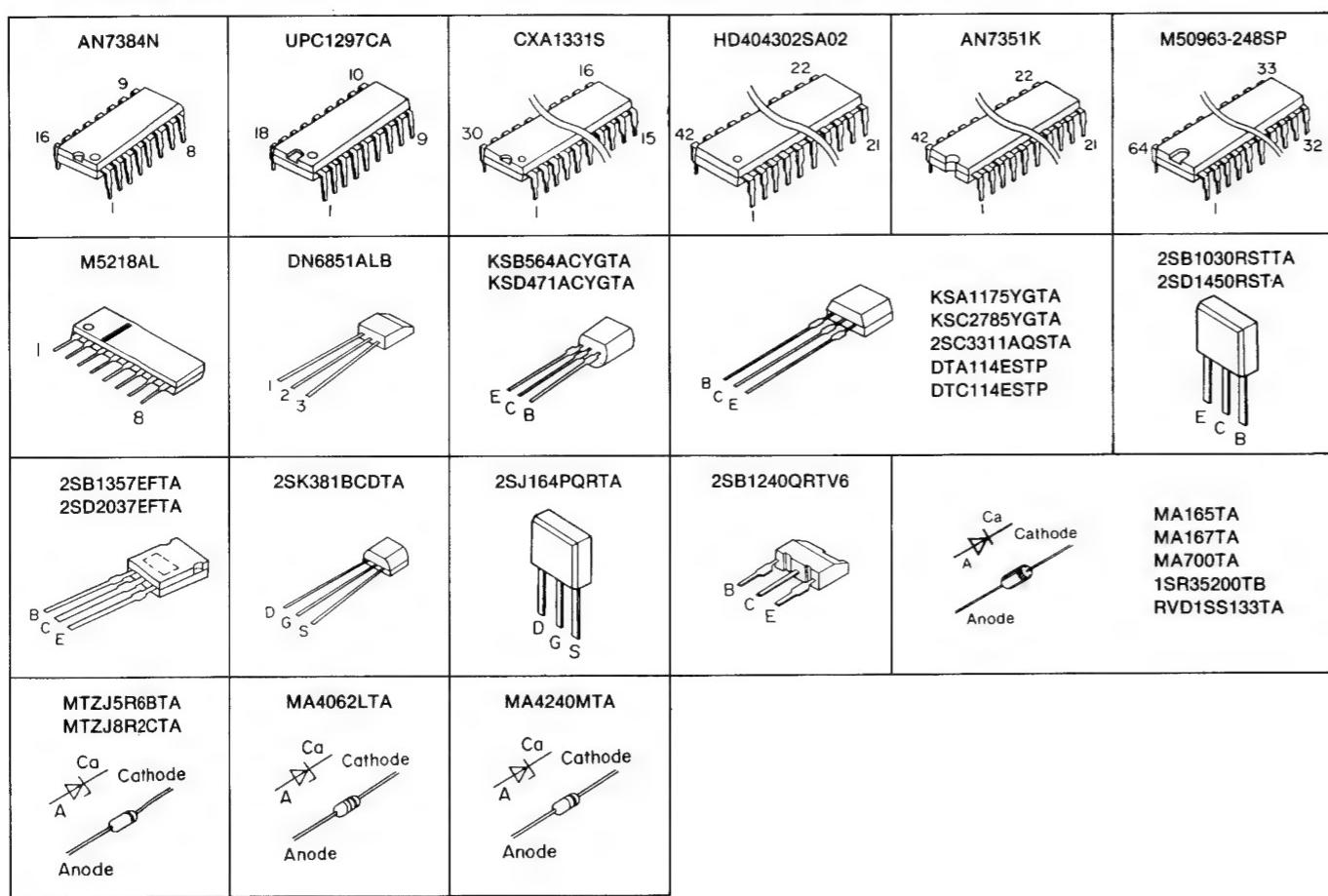
Pin No.	Mark	I/O Division	Function
58	P2 (6)	O	Mechanism motor "ON/OFF" select signal of deck 2 ("ON": "H", "OFF": "L")
59	P2 (5)	O	Mechanism motor speed select signal of deck 2 ("X1": "H", "X2": "L")
60	P2 (4)	O	Mechanism plunger "ON/OFF" select signal of deck 1 ("ON": "H", "OFF": "L")
61	P2 (3)	O	Mechanism motor speed select signal of deck 1 ("X1": "H", "X2": "L")
62	P2 (2)	O	Mechanism motor "ON/OFF" select signal of deck 1 ("ON": "H", "OFF": "L")
63	P2 (1)	I	Mechanism reel rotation pulse signal of deck 1
64	P2 (0)	I	Power switch ("ON": "L", "OFF": "H")

• IC551 (HD404302SA02): MICROCOMPUTER (This microcomputer is used for FL meter operation.)

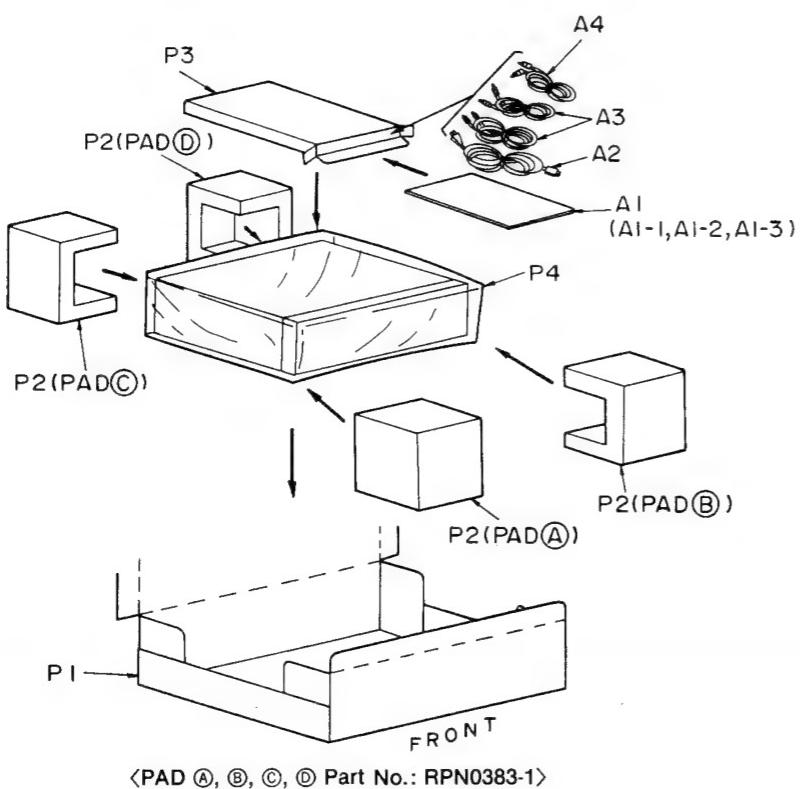
Pin No.	Mark	I/O Division	Function
1	SIN	I	Serial data signal
2 3 5 16	S1 S14	O	Segment signal for FL display
4	V disp	I	Pull down power supply terminal ( $-V_{cc}$ )
17	CP2	I	Peel pulse signal of deck 2
18	CP1	I	
19	CRST2	I	Tape counter reset terminal of deck 2
20	CRST1	I	Tape counter reset terminal of deck 1
21	GND	—	GND terminal
22	AVCC	I	Power supply terminal

Pin No.	Mark	I/O Division	Function
23	—	—	—
24	VRIN	—	Rec level control signal
25	SIGL	I	Lch level signal
26	SIGR	I	Rch level signal
27	AVSS	—	GND terminal
28	RESET	I	Reset terminal ("RESET": "H")
29	TEST	I	Test terminal
30	OSC1	O	Clock OSC terminal (4 MHz)
31	OSC2	I	
32	VCC	I	Power supply terminal
33 41	G1 G9	O	Grid signal for FL display
42	PWM	—	Not used, open

## ■ TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES



## ■ PACKING



## ■ REPLACEMENT PARTS LIST

Notes : \* Important safety notice:  
Components identified by  $\Delta$  mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.  
\* The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)  
Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)					
IC1	AN7384N	ELECTRIC VOLUME		Q906	DTC114ESTP	TRANSISTOR	
IC2	AN7351K	PLAYBACK/REC AMP		Q908, 909	DTA114ESTP	TRANSISTOR	
IC7	M5218L	REC LEVEL CONTROL(DECK2)		Q910	DTC114ESTP	TRANSISTOR	
IC101	M5218L	REC LEVEL CONTROL(DECK1)		Q911	KSA1175YGT A	TRANSISTOR	
IC301	UPC1297CA	DOLBY HX PRO(DECK2)		Q912	2SB1240-P	TRANSISTOR	
IC351	UPC1297CA	DOLBY HX PRO(DECK1)		Q913	DTC114ESTP	TRANSISTOR	
IC401	CXA1331S	DOLBY B/C NR		Q914	2SB1030QTA	TRANSISTOR	
IC551	HD404302SA02	MICROCOMPUTER; FL METER		Q915	DTC114ESTP	TRANSISTOR	
IC552	M5218L	BUFFER AMP		Q916	2SB1030QTA	TRANSISTOR	
IC802	M5218L	MUSIC SELECTOR AMP		Q917	DTC114ESTP	TRANSISTOR	
IC901	M50963-248SP	MICROCOMPUTER; MECHANICAL		Q918	KSA1175YGT A	TRANSISTOR	
IC971	DN6851ALB	HALL (DECK1)		Q919	DTC114ESTP	TRANSISTOR	
IC971A	DN6851ALB	HALL (DECK2)		Q920	2SB1240-P	TRANSISTOR	
		TRANSISTOR(S)		Q921	DTC114ESTP	TRANSISTOR	
Q3, 4	2SJ164PQRTA	TRANSISTOR		Q928	DTA114ESTP	TRANSISTOR	
Q5-8	KSA1175YGT A	TRANSISTOR		Q929	KSC2785YGT A	TRANSISTOR	
Q9-14	KSC2785YGT A	TRANSISTOR		Q930	DTA114ESTP	TRANSISTOR	
Q15, 16	2SD1450RSTA	TRANSISTOR		Q931	DTC114ESTP	TRANSISTOR	
Q101, 102	2SJ164PQRTA	TRANSISTOR		Q932	KSC2785YGT A	TRANSISTOR	
Q103, 104	KSC2785YGT A	TRANSISTOR		Q933	DTA114ESTP	TRANSISTOR	
Q105, 106	2SD1450RSTA	TRANSISTOR		Q934	DTC114ESTP	TRANSISTOR	
Q107, 108	KSA1175YGT A	TRANSISTOR					
Q109-112	KSC2785YGT A	TRANSISTOR					
Q113, 114	2SK381BCDTA	TRANSISTOR					
Q301, 302	2SC3311A-Q	TRANSISTOR					
Q303	KSB564ACYGTA	TRANSISTOR					
Q304	KSD471ACYGTA	TRANSISTOR					
Q351, 352	2SC3311A-Q	TRANSISTOR					
Q353	KSB564ACYGTA	TRANSISTOR					
Q354	KSD471ACYGTA	TRANSISTOR					
Q551	KSA1175YGT A	TRANSISTOR					
Q604	2SD2037EFTA	TRANSISTOR					
Q605	2SB1357EFTA	TRANSISTOR					
Q606	2SD2037EFTA	TRANSISTOR					
Q607	KSB564ACYGTA	TRANSISTOR					
Q608	2SB1357EFTA	TRANSISTOR					
Q813	DTA114ESTP	TRANSISTOR					
Q815	2SB1030QTA	TRANSISTOR					
Q816	KSC2785YGT A	TRANSISTOR					
Q902, 903	DTA114ESTP	TRANSISTOR					
Q904	2SB1030QTA	TRANSISTOR					
Q905	KSC2785YGT A	TRANSISTOR					

Ref. No.	Part No.	Part Name & Description	Remarks
D917	MA700TA	DIODE	
D919	MA165	DIODE	
D971	RVD1SS133TA	DIODE(DECK1)	
D971A	RVD1SS133TA	DIODE(DECK2)	
		VARIABLE RESISTOR(S)	
VR1	EVJ02FF01B15	REC LEVEL CONTROL	
VR3-6	EVNDXA00B24	PLAYBACK GAIN ADJ.	
VR7, 8	EVNDXA00B14	OVERALL GAIN ADJ. (DECK2)	
VR101, 102	EVNDXA00B14	OVERALL GAIN ADJ. (DECK1)	
VR301	EVNDXA00B14	ERASE CURRENT ADJ. (DECK2)	
VR302, 303	EVNDXA00B14	OVERALL FREQ. ADJ. (DECK2)	
VR351	EVNDXA00B14	ERASE CURRENT ADJ. (DECK1)	
VR352, 353	EVNDXA00B14	OVERALL FREQ. ADJ. (DECK1)	
VR901-903	EVNDXA00B53	TAPE SPEED ADJ.	
		COMPONENT COMBINATION(S)	
Z901	EXBF7E562JYV	COMBINATION PART (5.6kX6)	
		COIL (S)	
L1, 2	SLQX303-1KT	COIL	
L3, 4	SLQX272-1YT	COIL	
L5, 6	RLQB103JT-Y	COIL	
L101, 102	SLQX303-1KT	COIL	
L103, 104	SLQX272-1YT	COIL	
L301	SL09B4-K	COIL	
L302, 303	SL09B1-Z	COIL	
L351	SL09B4-K	COIL	
L352, 353	SL09B1-Z	COIL	
L401, 402	QLM9Z10K	COIL	
		TRANSFORMER(S)	
PT1	RTP1K4B013	POWER TRANSFORMER	△
		OSCILLATOR(S)	
		CONNECTOR(S) AND SOCKET(S)	
X551	EFOG4004A4	CERAMIC FILTER (4MHz)	
X901	EFOG4004A4	CERAMIC FILTER (4MHz)	
		DISPLAY TUBE	
FL551	RSL0027-1F	DISPLAY TUBE	
		FUSE (S)	
F1	XBA2C5TB0	FUSE 250V T2.5A	△
		SWITCH(ES)	

Ref. No.	Part No.	Part Name & Description	Remarks
S701	EVQ21405R	STOP(DECK1)	
S702	EVQ21405R	F. F. (DECK1)	
S703	EVQ21405R	REW. (DECK1)	
S704	EVQ21405R	F. PLAYBACK(DECK1)	
S705	EVQ21405R	R. PLAYBACK(DECK1)	
S706	EVQ21405R	REC(DECK1)	
S707	EVQ21405R	PAUSE(DECK1)	
S708	EVQ21405R	REVERSE MODE	
S709	EVQ21405R	DOLBY NR	
S710	EVQ21405R	METER RANGE	
S711	EVQ21405R	STOP(DECK2)	
S712	EVQ21405R	F. F. (DECK2)	
S713	EVQ21405R	REW. (DECK2)	
S714	EVQ21405R	F. PLAYBACK(DECK2)	
S715	EVQ21405R	R. PLAYBACK(DECK2)	
S716	EVQ21405R	REC(DECK2)	
S717	EVQ21405R	PAUSE(DECK2)	
S718	EVQ21405R	SYNCHRO START	
S719	EVQ21405R	TAPE EDIT SPEED (X1/X2)	
S720	EVQ21405R	COUNTER RESET2 (DECK2)	
S721	EVQ21405R	COUNTER RESET1 (DECK1)	
S722	EVQ21405R	AUTO REC MUTE (DECK2)	
S723	EVQ21405R	AUTO REC MUTE (DECK1)	
S724	EVQ21405R	POWER	
S971	RSHIA89ZB-U	MODE(DECK1)	
S972	RSHIA90YB-U	HALF(DECK1)	
S973	RSHIA90YB-U	R. REC INH (DECK1)	
S974	RSHIA90YB-U	F. REC INH (DECK1)	
S975	RSHIA90YB-U	ATS(DECK1)	
S976	RSHIA90YB-U	ATS(DECK1)	
S971A	RSHIA89ZB-U	MODE(DECK2)	
S972A	RSHIA90YB-U	HALF(DECK2)	
S973A	RSHIA90YB-U	R. REC INH (DECK2)	
S974A	RSHIA90YB-U	F. REC INH (DECK2)	
S975A	RSHIA90YB-U	ATS(DECK2)	
S976A	RSHIA90YB-U	ATS(DECK2)	
		CONNECTOR(S) AND SOCKET(S)	
CN3	SJSD1005	CONNECTOR(10P)	
CN4	RJS1A1704	CONNECTOR(4P)	
CN5	SJSD1005	CONNECTOR(10P)	
CN6	RJS1A1704	CONNECTOR(4P)	
CN8	SJSD1005	CONNECTOR(10P)	
CN11, 12	RJU003K010M1	SOCKET(10P)	
CN15, 16	RJU060G05T	SOCKET(5P)	
CN600A	RJS1A1703	CONNECTOR(3P)	
CN600B	RJS1A1703	CONNECTOR(3P)	
CN701	SJT30643-V	CONNECTOR(6P)	
CP1, 2	RJP5G18ZA	CONNECTOR(5P)	
CP11, 12	RJT003K010M1	CONNECTOR(10P)	

Ref. No.	Part No.	Part Name & Description	Remarks
CP15, 16	RJT060RD5	CONNECTOR(5P)	
CP17, 18	SJTD313	CONNECTOR(3P)	
		JACK(S)	
JK1	SJF3069-2N	TERMINAL BOARD	
JK3-5	RJJ33T01	M3 JACK	
JK701	SJS9236	AC INLET	△
JK702	RJS1A4802-B	AC OUTLET	(EB) △
JK702	RJS1A4902-B	AC OUTLET	(E, EG) △
		GND PART(S)	
E1	SNE1004-1	GND PLATE	

Ref. No.	Part No.	Part Name & Description	Remarks
		FUSE HOLDER(S)	
FC701, 702	EYF52BC	FUSE HOLDER	
		FLAT CABLE(S)	
W3	RWJ0210200QQ	FLAT CABLE(10P)	
W4	RWJ1804200QQ	FLAT CABLE(4P)	
W5	RWJ0210200QQ	FLAT CABLE(10P)	
W6	RWJ1804200QQ	FLAT CABLE(4P)	
W8	RWJ0210200KQ	FLAT CABLE(10P)	
W600	RWJ1806120QQ	FLAT CABLE(6P)	

## ■ RESISTORS & CAPACITORS

Notes : \* Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)  
 \* Resistance values are in ohms, unless specified otherwise, 1K=1,000(Ω), 1M=1,000k(Ω)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R61, 62	ERDS2TJ152	1/4W 1.5K	R304, 305	ERDS2TJ100	1/4W 10	R306	ERDS2TJ471	1/4W 470
R65	ERDS2TJ392T	1/4W 3.9K	R307	ERDS2TJ102	1/4W 1K	R311, 312	ERDS2TJ101	1/4W 100
R67	ERDS2TJ103	1/4W 10K	R313, 314	ERDS2TJ154	1/4W 150K	R315, 316	ERDS2TJ153	1/4W 15K
R85	ERDS2TJ101	1/4W 100	R319	ERDS2TJ102	1/4W 1K	R321	ERDS2TJ102	1/4W 1K
R91	ERDS2TJ124T	1/4W 120K	R329	ERDS2TJ102	1/4W 1K	R351	ERDS2TJ1R0	1/4W 1.0
R93	ERDS2TJ273	1/4W 27K	R352, 353	ERDS2TJ183T	1/4W 18K	R354, 355	ERDS2TJ100	1/4W 10
R94	ERDS2TJ123	1/4W 12K	R356	ERDS2TJ471	1/4W 470	R357	ERDS2TJ102	1/4W 1K
R101, 102	ERDS2TJ225	1/4W 2.2M	R361, 362	ERDS2TJ101	1/4W 100	R363, 364	ERDS2TJ154	1/4W 150K
R103-108	ERDS2TJ103	1/4W 10K	R365, 366	ERDS2TJ153	1/4W 15K	R369	ERDS2TJ102	1/4W 1K
R109, 110	ERDS2TJ332	1/4W 3.3K	R371	ERDS2TJ102	1/4W 1K	R379	ERDS2TJ102	1/4W 1K
R111, 112	ERDS2TJ103	1/4W 10K	R380, 381	ERDS2TJ103	1/4W 10K	R405, 406	ERDS2TJ242	1/4W 2.4K
R113, 114	ERDS2TJ223	1/4W 22K	R407, 408	ERDS2TJ562	1/4W 5.6K	R409, 410	ERDS2TJ243T	1/4W 24K
R115, 116	ERDS2TJ472	1/4W 4.7K	R411, 412	ERDS2TJ561	1/4W 560	R417	ERDS2TJ151	1/4W 150
R117, 118	ERDS2TJ330	1/4W 33	R418	ERDS2TJ273	1/4W 27K	R422	ERDS2TJ333	1/4W 33K
R121, 122	ERDS2TJ122	1/4W 1.2K	R451, 452	ERDS2TJ103	1/4W 10K	R455-456	ERDS2TJ473	1/4W 47K
R123, 124	ERDS2TJ562	1/4W 5.6K	R457, 458	ERDS2TJ103	1/4W 10K	R459, 460	ERDS2TJ103	1/4W 10K
R125, 126	ERDS2TJ272T	1/4W 2.7K	R459, 460	ERDS2TJ103	1/4W 1			

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R557, 558	ERDS2TJ220T	1/4W 22	R839	ERDS2TJ222	1/4W 2. 2K	R960	ERDS2TJ153	1/4W 15K
R559, 560	ERDS2TJ152	1/4W 1. 5K	R840	ERDS2TJ102	1/4W 1K	R961	ERDS2TJ221	1/4W 220
R561	ERDS2TJ102	1/4W 1K	R841	ERDS2TJ473	1/4W 47K	R962	ERDS2TJ103	1/4W 10K
R562	ERDS2TJ471	1/4W 470	R842	ERDS2TJ183T	1/4W 18K	R963	ERDS2TJ392T	1/4W 3. 9K
R563, 564	ERDS2TJ103	1/4W 10K	R843	ERDS2TJ393	1/4W 39K	R964	ERDS2TJ184T	1/4W 180K
R565	ERDS2TJ105T	1/4W 1M	R844	ERDS2TJ472	1/4W 4. 7K	R965	ERDS2TJ103	1/4W 10K
R566, 567	ERDS2TJ103	1/4W 10K	R845	ERDS2TJ823T	1/4W 82K	R966	ERDS2TJ223	1/4W 22K
R569	ERDS2TJ105T	1/4W 1M	R846	ERDS2TJ101	1/4W 100	R967	ERDS2TJ821	1/4W 820
R605	ERD2FCVJ5R6T	1/4W 5. 6 △	R847	ERDS2TJ122	1/4W 1. 2K	R968, 969	ERDS2TJ472	1/4W 4. 7K
R606	ERD2FCVJ4R7T	1/4W 4. 7 △	R852, 853	ERD2FCVG470T	1/4W 47 △	R973	ERDS2TJ472	1/4W 4. 7K
R607, 608	ERDS2TJ102	1/4W 1K	R902	ERDS2TJ822	1/4W 8. 2K	R975, 976	ERDS2TJ331	1/4W 330
R609, 610	ERDS2TJ1R5T	1/4W 1. 5	R903	ERDS2TJ393	1/4W 39K	R977, 978	ERDS2TJ103	1/4W 10K
R611	ERD2FCVG100T	1/4W 10 △	R904, 905	ERDS2TJ222	1/4W 2. 2K	R979	ERDS2TJ153	1/4W 15K
R612	ERD2FCVG270T	1/4W 27 △	R906	ERDS2TJ103	1/4W 10K	R980-985	ERDS2TJ393	1/4W 39K
R613	ERDS2TJ102	1/4W 1K	R907	ERDS2TJ563	1/4W 56K	R986	ERDS2TJ103	1/4W 10K
R614	ERDS2TJ222	1/4W 2. 2K	R908-910	ERDS2TJ103	1/4W 10K	R987	ERDS2TJ472	1/4W 4. 7K
R615, 616	ERDS2TJ270T	1/4W 27	R911	ERDS2TJ392T	1/4W 3. 9K	R990	ERDS2TJ100	1/4W 10
R617, 618	ERQ16NKWR15E	1W 0.15	R912	ERDS2TJ222	1/4W 2. 2K	R993	ERDS2TJ103	1/4W 10K
R619-621	ERDS2TJ560T	1/4W 56	R913	ERDS2TJ272T	1/4W 2. 7K	R994	ERDS2TJ102	1/4W 1K
R622	ERQ16NKWR15E	1W 0.15	R914	ERDS2TJ152	1/4W 1. 5K	R995, 996	ERDS2TJ100	1/4W 10
R623	ERDS2TJ560T	1/4W 56	R915	ERDS2TJ473	1/4W 47K	R997	ERDS2TJ562	1/4W 5. 6K
R624, 625	ERDS2TJ270T	1/4W 27	R916	ERDS2TJ272T	1/4W 2. 7K	R998	ERDS2TJ100	1/4W 10
R632	ERD2FCVJ5R6T	1/4W 5. 6 △	R917, 918	ERDS2TJ103	1/4W 10K			
R701	ERDS2TJ821	1/4W 820	R919	ERDS2TJ471	1/4W 470			
R702	ERDS2TJ102	1/4W 1K	R920-922	ERDS2TJ103	1/4W 10K			CAPACITORS
R703	ERDS2TJ122	1/4W 1. 2K	R923	ERDS2TJ100	1/4W 10	C1-3	ECEA1HKA010B	50V 1U
R704	ERDS2TJ152	1/4W 1. 5K	R924	ERDS2TJ103	1/4W 10K	C5, 6	ECEA1CKA220B	16V 22U
R705	ERDS2TJ182	1/4W 1. 8K	R925	ERDS2TJ223	1/4W 22K	C7-10	ECBT1H561KB5	50V 560P
R706	ERDS2TJ222	1/4W 2. 2K	R926	ERDS2TJ100	1/4W 10	C11, 12	ECBT1H102KB5	50V 1000P
R707	ERDS2TJ332	1/4W 3. 3K	R927	ERDS2TJ223	1/4W 22K	C13, 14	ECEA0JKA101B	6. 3V 100U
R708	ERDS2TJ472	1/4W 4. 7K	R928	ERDS2TJ273	1/4W 27K	C15, 16	ECQB1H682JZ3	50V 6800P
R709	ERDS2TJ682T	1/4W 6. 8K	R931	ERDS2TJ102	1/4W 1K	C17-20	ECEA1EKA4R7B	25V 4. 7U
R710	ERDS2TJ123	1/4W 12K	R932	ERDS2TJ392T	1/4W 3. 9K	C21	ECEA0JKA101B	6. 3V 100U
R713	ERDS2TJ821	1/4W 820	R933	ERDS2TJ472	1/4W 4. 7K	C25, 26	ECEA1EKA4R7B	25V 4. 7U
R714	ERDS2TJ102	1/4W 1K	R934	ERDS2TJ105T	1/4W 1M	C27, 28	ECBT1H561KB5	50V 560P
R715	ERDS2TJ122	1/4W 1. 2K	R935	ERDS2TJ182	1/4W 1. 8K	C29, 30	ECCR2H101KB5	500V 100P
R716	ERDS2TJ152	1/4W 1. 5K	R938, 939	ERDS2TJ472	1/4W 4. 7K	C31, 32	ECBT1H181KB5	50V 180P
R717	ERDS2TJ182	1/4W 1. 8K	R941	ERDS2TJ102	1/4W 1K	C33, 34	ECEA1HKA4R7B	50V 0. 47U
R718	ERDS2TJ222	1/4W 2. 2K	R943	ERDS2TJ103	1/4W 10K	C35, 36	ECQB1H472JZ	50V 4700P
R719	ERDS2TJ332	1/4W 3. 3K	R945	ERDS2TJ822	1/4W 8. 2K	C37, 38	ECQB1H223JZ3	50V 0. 022U
R720	ERDS2TJ472	1/4W 4. 7K	R948	ERDS2TJ184T	1/4W 180K	C39, 40	ECQB1H103JZ	50V 0. 01U
R721	ERDS2TJ682T	1/4W 6. 8K	R949	ERDS2TJ103	1/4W 10K	C41, 42	ECQB1H223JZ3	50V 0. 022U
R722	ERDS2TJ123	1/4W 12K	R950	ERDS2TJ332	1/4W 3. 3K	C43, 44	ECQB1H153JZ	50V 0. 015U
R825, 826	ERDS2TJ103	1/4W 10K	R951	ERDS2TJ103	1/4W 10K	C45, 46	ECBT1E103ZF	25V 0. 01U
R827	ERDS2TJ563	1/4W 56K	R952	ERDS2TJ392T	1/4W 3. 9K	C49, 50	ECEA1CKA100B	16V 10U
R828	ERDS2TJ222	1/4W 2. 2K	R953	ERDS2TJ103	1/4W 10K	C53, 54	ECQB1H563JZ3	50V 0. 056U
R829	ERDS2TJ392T	1/4W 3. 9K	R954	ERDS2TJ223	1/4W 22K	C55	ECBT1E103ZF	25V 0. 01U
R830	ERDS2TJ103	1/4W 10K	R955	ERDS2TJ821	1/4W 820	C57, 58	ECEA1HKA470B	10V 47U
R831	ERDS2TJ272T	1/4W 2. 7K	R956	ERDS2TJ223	1/4W 22K	C63	ECEA1CKA100B	16V 10U
R832	ERDS2TJ152	1/4W 1. 5K	R957	ERDS2TJ821	1/4W 820	C64	ECEA1HN010	50V 1U
R837	ERDS2TJ473	1/4W 47K	R958	ERDS2TJ223	1/4W 22K	C71, 72	ECBT1H391KB5	50V 390P
R838	ERDS2TJ272T	1/4W 2. 7K	R959	ERDS2TJ821	1/4W 820	C73, 74	ECBT1C472KR5	16V 4700P

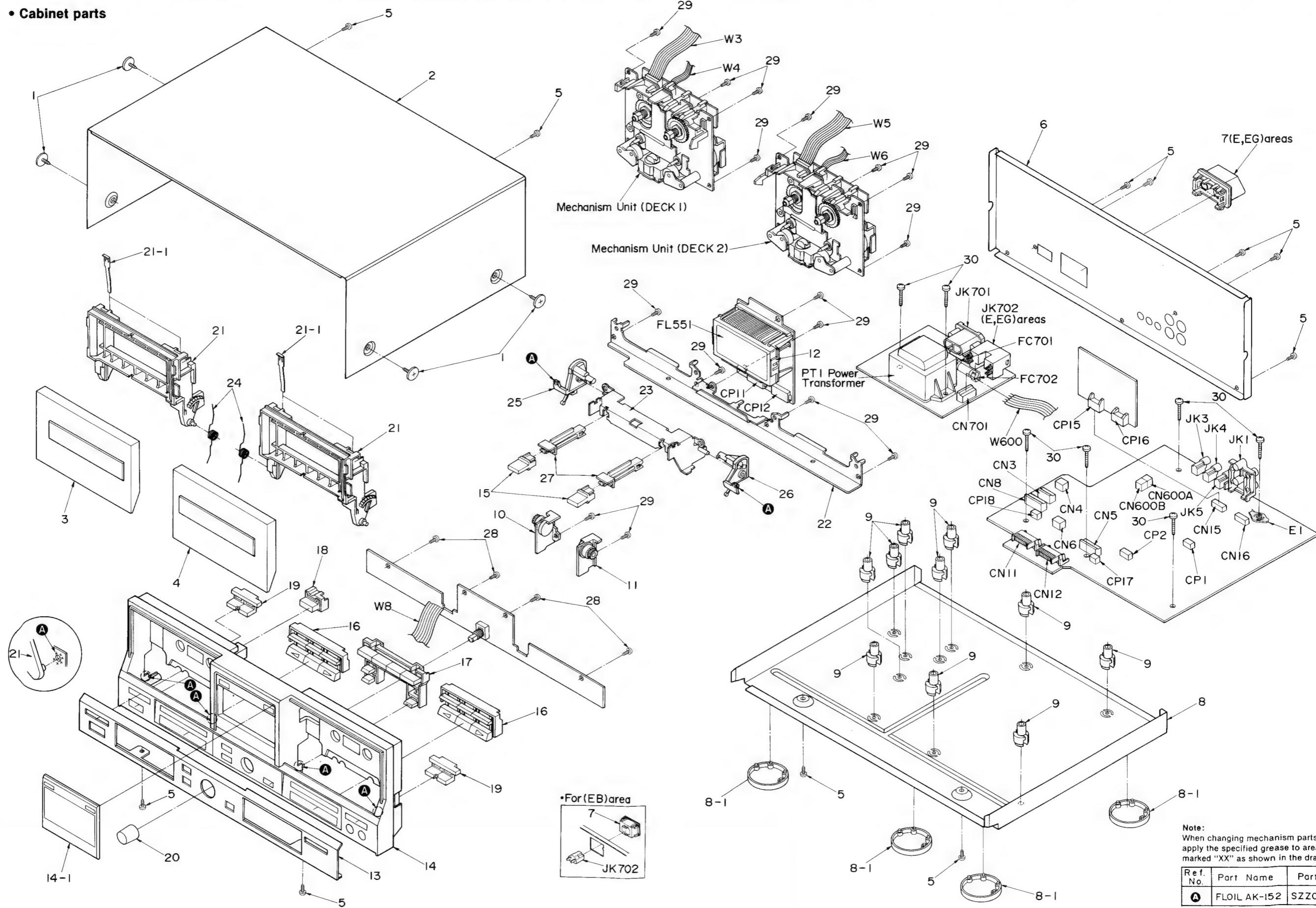
Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
C81-84	ECBT1H4R7KC5	50V 4. 7P	C405-408	ECQB1H222JZ3	50V 2200P
C101, 102	ECBT1H102KB5	50V 1000P	C409, 410	ECEA1HUR56B	50V 0. 56U
C103, 104	ECKR2H101KB5	500V 100P	C411, 412	ECEA1HKA33B	50V 0. 33U
C105, 106	ECBT1H561KB5	50V 560P	C413-416	ECEA1EKA4R7B	25V 4. 7U
C107, 108	ECEA1HKAR47B	50V 0. 47U	C551, 552	ECEA1CKA100B	16V 10U
C109, 110	ECBT1H181KB5	50V 180P	C553, 554	ECEA0JKA101B	6. 3V 100U
C111, 112	ECQB1H273JZ	50V 0. 027U	C555	ECKR1H103ZF5	50V 0. 01U
C113, 114	ECQB1H103JZ	50V 0. 01U	C556	ECEA0JKA101B	6. 3V 100U
C115, 116	ECQV1H563JZ3	50V 0. 056U	C557	ECEA1EKA4R7B	25V 4. 7U
C117, 118	ECQB1H153JZ	50V 0. 015U	C558	ECEA1HKA010B	50V 1U
C119, 120	ECEA1EKA4R7B	25V 4. 7U	C559-562	ECKR1H103ZF5	50V 0. 01U
C121	ECBT1E103ZF	25V 0. 01U	C601	ECKR2H682PE	500V 6800P
C131, 132	ECQB1H822JZ	50V 8200P	C602, 603	ECA1EM102B	25V 1000U
C133, 134	ECQB1H153JZ	50V 0. 015U	C604, 605	ECKR1H103ZF5	50V 0. 01U
C135, 136	ECQB1H822JZ	50V 8200P	C606, 607	ECEA1AKA221Q	10V 220U
C137, 1					

## ■ EXPLODED VIEW

1 2 3 4 5 6 7 8 9

## • Cabinet parts

A B C D E F



## REPLACEMENT PARTS LIST

Notes : \* Important safety notice:

Components identified by  $\Delta$  mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

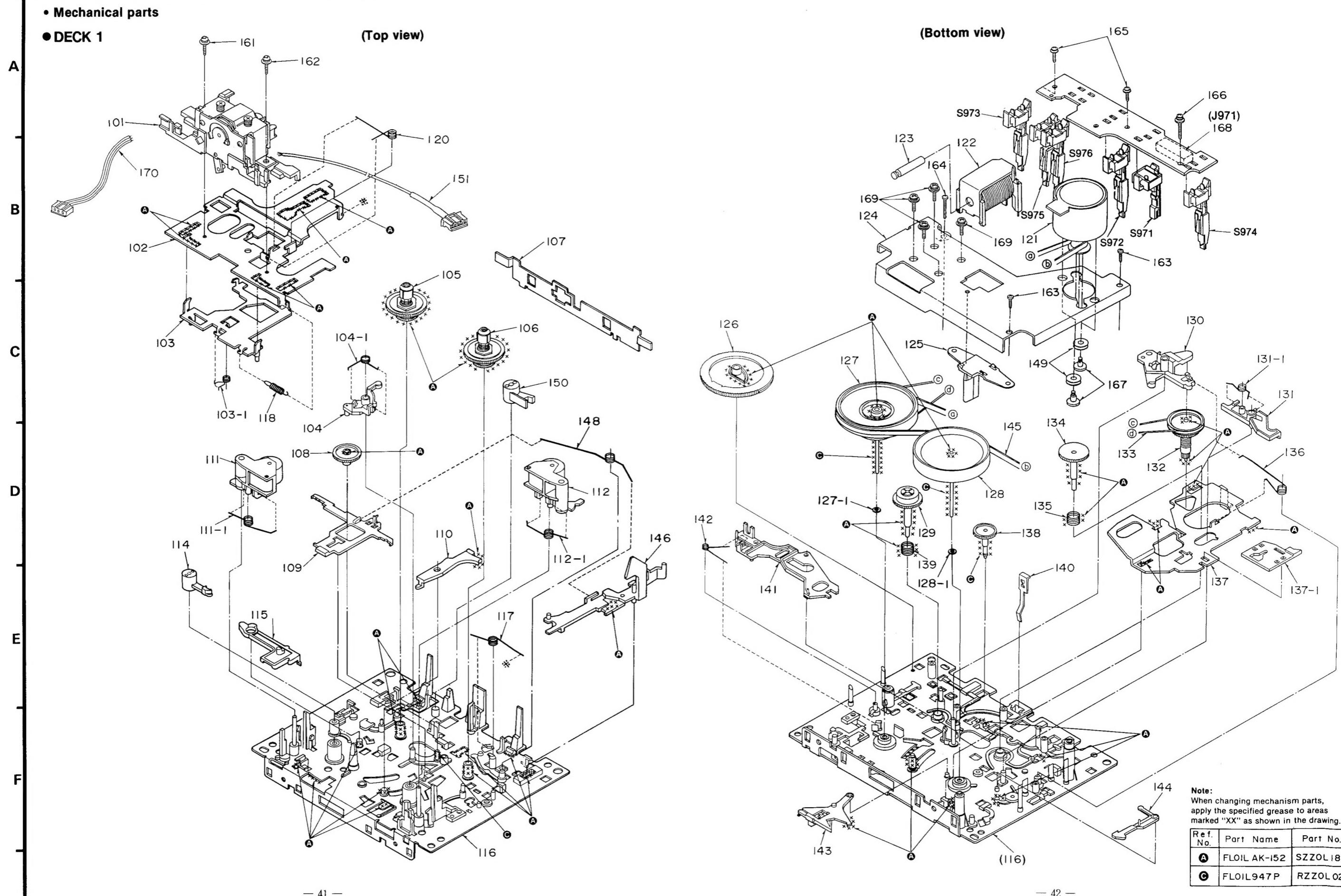
\* The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)  
Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
						ACCESSORIES	
		CABINET AND CHASSIS					
1	RHD30007	SCREW		A1	RQF1078	INSTRUCTION MANUAL UNIT	(E)
2	RKMD024-2K	CABINET		A1	RQF1079	INSTRUCTION MANUAL UNIT	(EB)
3	RYF0136-K	CASSETTE LID(DECK1)		A1	RQF1080	INSTRUCTION MANUAL UNIT	(EG)
4	RYF0137-K	CASSETTE LID(DECK2)		A1-1	RFKSSX902E-K	INSTRUCTION MANUAL ASS' Y	(E)
5	XTBS3+8JFZ1	SCREW		A1-1	RQT0984-B	INSTRUCTION MANUAL	(EB)
6	RGR0102B-B	REAR PANEL	(EB)	A1-1	RQT0985-D	INSTRUCTION MANUAL	(EG)
6	RGR0102C-B	REAR PANEL	(EG)	A1-2	RQA0013	WARRANTY CARD	
6	RGR0102C-D	REAR PANEL	(E)	A1-3	RQCB0169	SERVICENTER LIST	
7	RJS1A4802-A	AC OUTLET COVER	(EB)	A2	SJA187	AC POWER SUPPLY CORD	(E, EG) $\Delta$
7	RJS1A4902-A	AC OUTLET COVER	(E, EG)	A2	SJA188	AC POWER SUPPLY CORD	(EB) $\Delta$
8	RFKJSX502E-K	BOTTOM BOARD ASS' Y		A3	SJP2249-3	STEREO CONNECTION CABLE	
8-1	RKA0011-2	FOOT		A4	SJP2257T	L-TYPE CABLE	
9	RKQ0089	P. C. B. HOLDER					
10	RFKNSDN7AK	DAMPER GEAR ASS' Y(L)					
11	RFKNSDN7BK	DAMPER GEAR ASS' Y(R)					
12	RMN0049	FL HOLDER					
13	RGG0066-K	FRONT AL PANEL					
14	RFKGSX502E-K	FRONT PANEL ASS' Y					
14-1	RKW0124A-K1	TRANSPARENT PLATE					
15	RGU0461-K	BUTTON, EJECT					
16	RGU0601-K	BUTTON, OPERATION					
17	RGU0603-K	BUTTON, COUNTER/SYNCHRO					
18	RGU0604-K	BUTTON, POWER					
19	RGU0605-K	BUTTON, REC					
20	RGW0098-K	KNOB, REC LEVEL					
21	RKF0169A-K	CASSETTE HOLDER					
21-1	QBP2006A	TAPE PRESSURE SPRING					
22	RMA0159-1	MECHANISM ANGLE					
23	RMA0373	EJECT ANGLE					
24	RME0068-1	SPRING					
25	RML0185-1	EJECT LEVER(L)					
26	RML0186-1	EJECT LEVER(R)					
27	RMM0041	EJECT ROD					
28	XTBS26+10J	SCREW					
29	XTB3+10JFZ	SCREW					
30	XTB3+20JFZ	SCREW					
		PACKING MATERIAL					
P1	RPG0845	CARTON BOX					
P2	RPN0383-1	PAD					
P3	SPSD152	ACCESSORIES BOX					
P4	SPP756	PROTECTION COVER					

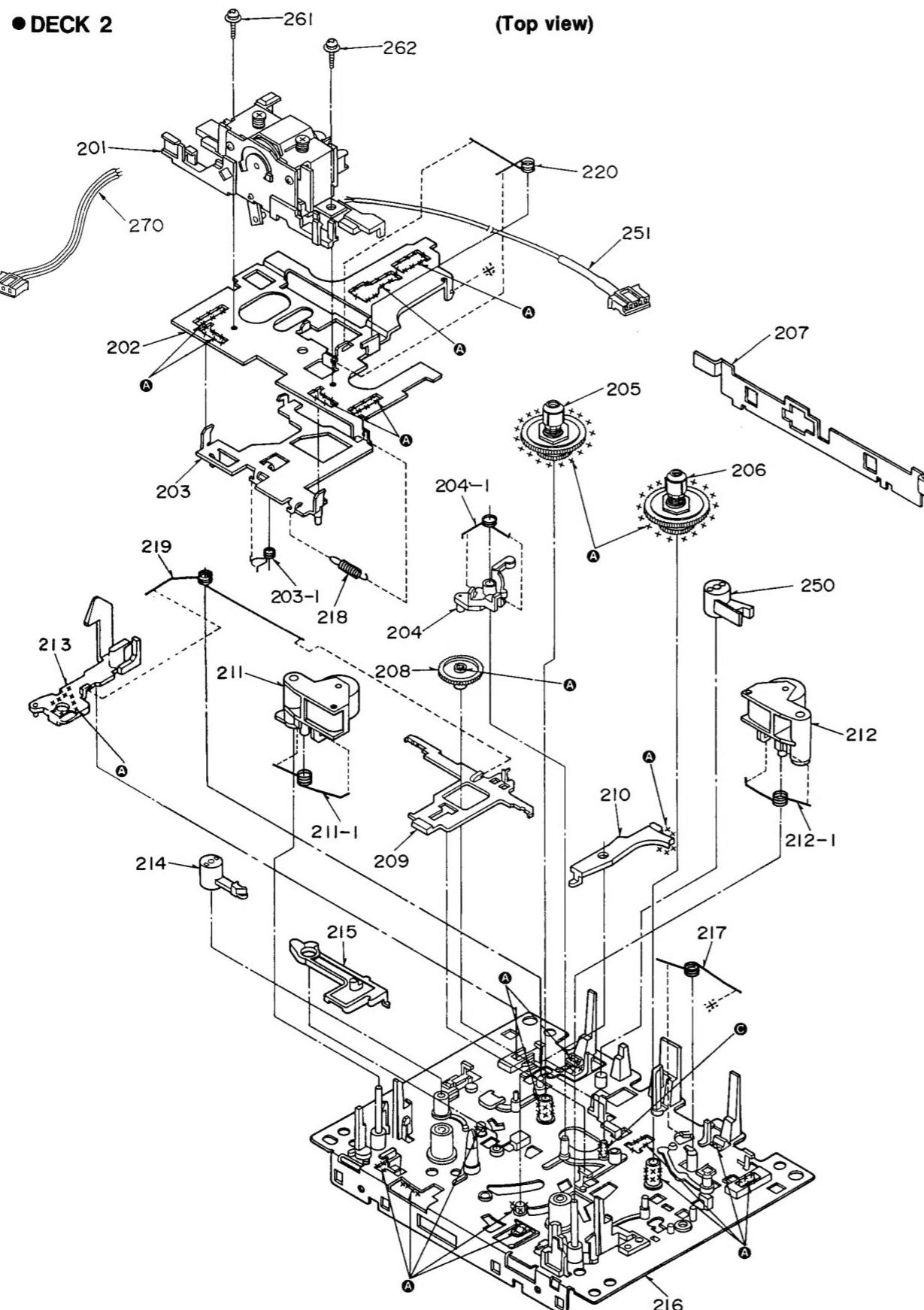
Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
				143	RUB515ZA	LEVER	
		MECHANISM PARTS LIST		144	RUB509ZA	LEVER	
DECK1				145	RDV0015	CAPSTAN BELT	
101	RXQ0008	HEAD BLOCK(REC. /PLAYBACK)		146	RUB507ZD	EJECT ROD(R)	
102	RUA793ZF	HEAD BASE		148	RUW144ZA	SPRING	
103	RZLAR300	ROD		149	RHG3032ZA	RUBBER CUSHION	
103-1	RUW143ZA	SPRING		150	RNL180ZB	DAMPER ARM	
104	IUB0089ZA	ARM		151	REX0059	LEAD WIRE BLOCK(5P)	
104-1	RUW148ZA	SPRING		161	XTW2+6L	SCREW	
105	IDM0018ZA	REEL TABLE(R)		162	XTW2+8L	SCREW	
106	IDM0017ZA	REEL TABLE(F)		163	XTN26+7J	SCREW	
107	RML0069-1	LEVER		164	RHE5203ZA	SCREW	
108	RDG5772ZC	GEAR		165	XTW2+8S	SCREW	
109	RUB508ZB	BRAKE ROD		166	XYC2+JF16	SCREW	
110	RUB506ZB	LEVER		167	RHD26002	SCREW	
111	IUB0088ZA	ARM(R)		168	RJS10T7ZA	CONNECTOR(10P), J971	
111-1	RUW141ZA	SPRING		169	RHD26003	SCREW	
112	IUB0087ZA	ARM(F)		170	REX0145	READ WIRE BLOCK(3P)	
112-1	RUW140ZC	SPRING					
114	RNL1ZD	DAMPER ARM					
115	RUB503ZD	MAIN LEVER					
116	RZUSX980	CHASSIS					
117	RUW142ZA	SPRING					
118	RUD105ZA	SPRING					
120	RUW139ZA	SPRING					
121	RFM133ZA	DC MOTOR					
122	IUE0015ZA	PLUNGER					
123	RJB428ZE	MOVING IRON CORE					
124	RUL1030XB	ANGLE					
125	RMD5014ZC	ANGLE					
126	RDG5927ZG	GEAR					
127	IDW0053ZB	FLYWHEEL(F)					
127-1	RNW139ZA	WASHER					
128	IDW0054ZB	FLYWHEEL(R)					
128-1	RNW138ZA	WASHER					
129	1DG0006ZA	REEL TABLE GEAR					
130	RUB513ZD	ARM					
131	IUB0091ZA	LEVER					
131-1	RUW146ZA	SPRING					
132	IDR0011ZA	MAIN PULLEY					
133	RDV90ZB	BELT					
134	RDG5769ZA	REEL TABLE GEAR					
135	RUQ111ZB	SPRING					
136	RUW145ZA	SPRING					
137	IUB0090ZA	ROD					
137-1	RUB512ZB	F. F. ROD					
138	RDG5773ZB	GEAR					
139	RUQ112ZA	SPRING					
140	RUS609ZC	TAPE PRESSURE SPRING					
141	RUB514ZC	LEVER					
142	RUW147ZA	SPRING					

## ■ EXPLODED VIEWS

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## REPLACEMENT PARTS LIST

Ref. No.	Part No.	Part Name & Description	Remarks
MECHANISM PARTS LIST			
DECK2			
201	RXQ0008	HEAD BLOCK(REC./PLAYBACK)	
202	RJW1793ZF	HEAD BASE	
203	RZLAR300	ROD	
203-1	RJW143ZA	SPRING	
204	IUB0089ZA	ARM	
204-1	RJW148ZA	SPRING	
205	1DM0018ZA	REEL TABLE(R)	
206	1DM0017ZA	REEL TABLE(F)	
207	RML0069-1	LEVER	
208	RDG5772ZC	GEAR	
209	RUB508ZB	BRAKE ROD	
210	RUB506ZB	LEVER	
211	IUB0088ZA	ARM(R)	
211-1	RJW141ZA	SPRING	
212	IUB0087ZA	ARM(F)	
212-1	RJW140ZC	SPRING	
213	RUB541ZB	EJECT ROD(L)	
214	RNL12D	DAMPER ARM	
215	RUB503ZD	MAIN LEVER	
216	RZUSX980	CHASSIS	
217	RJW142ZA	SPRING	
218	RUD105ZA	SPRING	
219	RJW167ZA	SPRING	
220	RJW139ZA	SPRING	
221	RFM133ZA	DC MOTOR	
222	IUE0015ZA	PLUNGER	
223	RJU428ZE	MOVING IRON CORE	
224	RUL1030XB	ANGLE	
225	RMD5014ZC	ANGLE	
226	RDG5927ZG	GEAR	
227	1DW0053ZB	FLYWHEEL(F)	
227-1	RNW139ZA	WASHER	
228	1DW0054ZB	FLYWHEEL(R)	
228-1	RNW138ZA	WASHER	
229	1DG0006ZA	REEL TABLE GEAR	
230	RUB513ZD	ARM	
231	IUB0091ZA	LEVER	
231-1	RJW146ZA	SPRING	
232	1DR0011ZA	MAIN PULLEY	
233	RDV902B	BELT	
234	RDG5769ZA	REEL TABLE GEAR	
235	RJQ111ZB	SPRING	
236	RJW145ZA	SPRING	
237	IUB0090ZA	ROD	
237-1	RJB512ZB	F. F. ROD	
238	RDG5773ZB	GEAR	
239	RJQ112ZA	SPRING	
240	RJS609ZC	TAPE PRESSURE SPRING	

Ref. No.	Part No.	Part Name & Description	Remarks
241	RUB514ZC	LEVER	
242	RJW1472A	SPRING	
243	RUB515ZA	LEVER	
244	RUB509ZA	LEVER	
245	RDV0015	CAPSTAN BELT	
249	RHG3032ZA	RUBBER CUSHION	
250	RNL180ZB	DAMPER ARM	
251	REX0059	LEAD WIRE BLOCK(5P)	
261	XTW2+6L	SCREW	
262	XTW2+8L	SCREW	
263	XTN26+7J	SCREW	
264	RHE5203ZA	SCREW	
265	XTW2+8S	SCREW	
266	XYC2+JF16	SCREW	
267	RHD26002	SCREW	
268	RJS10T7ZA	CONNECTOR(10P), J971A	
269	RHD26003	SCREW	
270	REX0145	LEAD WIRE BLOCK(3P)	